As submitted for confidential review with the Securities and Exchange Commission on December 19, 2018.
This draft registration statement has not been publicly filed with the Securities and Exchange Commission and all information herein remains strictly confidential.
Registration No. 333-

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM S-1

REGISTRATION STATEMENT
Under
The Securities Act of 1933

SILK ROAD MEDICAL, INC.

(Exact name of registrant as specified in its charter)

Delaware	**3841**	**20-8777622**
(State or other jurisdiction of incorporation or organization)	**(Primary Standard Industrial Classification Code Number)**	**(I.R.S. Employer Identification Number)**

1213 Innsbruck Dr. Sunnyvale, CA 94089, (408) 720-9002

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Erica J. Rogers
Chief Executive Officer
1213 Innsbruck Dr. Sunnyvale, CA 94089 (408) 720-9002

(Name, address, including zip code, and telephone number, including area code, of agent for service)

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Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this Registration Statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. ☐

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer", "smaller reporting company", and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☐ (Do not check if a smaller reporting company)	Smaller reporting company	☒
Emerging growth company	☒		

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. ☐

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Proposed Maximum Aggregate Offering Price[(1)(2)]	Amount of Registration Fee
Common Stock, $0.001 par value		

(1) Estimated solely for the purpose of computing the amount of the registration fee pursuant to Rule 457(o) under the Securities Act of 1933, as amended.

(2) Includes the aggregate offering price of additional shares that the underwriters have the option to purchase.

The registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Commission acting pursuant to said Section 8(a) may determine.

The information in this preliminary prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is declared effective. This preliminary prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

Subject to completion, dated December 19, 2018

Shares

Common Stock

This is an initial public offering of shares of common stock of Silk Road Medical, Inc.

We are offering shares of common stock. This is our initial public offering and no public market currently exists for our common stock. We anticipate the initial public offering price will be between $ and $ per share.

We intend to apply to list our common stock on The NASDAQ Stock Exchange under the symbol "SILK."

We are an "emerging growth company" and a "smaller reporting company" as defined under the federal securities laws and, as such, may elect to comply with certain reduced public company reporting requirements for future filings. Investing in our common stock involves a high degree of risk. Please see the section entitled "Risk Factors" starting on page 12 to read about risks you should consider carefully before buying shares of our common stock.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

	Per Share	Total
Initial Public Offering Price	$	$
Underwriting Discounts and Commissions[(1)]	$	$
Proceeds, before expenses, to us	$	$

(1) See the section titled "Underwriting" for a description of the underwriting discounts and commissions and offering expenses.

The selling stockholders have granted the underwriters an option exercisable for 30 days after the date of this prospectus, to purchase, from time to time, in whole or in part, up to an aggregate of shares from the selling stockholders at the public offering price less underwriting discounts and commissions.

The underwriters expect to deliver the shares on or about , 2019.

J.P. Morgan **BofA Merrill Lynch**

BMO Capital Markets **Stifel**

The date of this prospectus is , 2019.

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Through and including , 2019 (the 25th day after the date of this prospectus), all dealers effecting transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to a dealer's obligation to deliver a prospectus when acting as an underwriter and with respect to an unsold allotment or subscription.

Neither we, the selling stockholders, nor the underwriters have authorized anyone to provide any information or to make any representations other than those contained in this prospectus or in any free writing prospectuses prepared by or on behalf of us or to which we have referred you. We, the selling stockholders, and the underwriters take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This prospectus is an offer to sell only the securities offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus is accurate only as of the date of this prospectus regardless of the time of delivery of this prospectus or of any sale of our common stock.

For investors outside the United States: Neither we, the selling stockholders, nor the underwriters have done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside the United States who come into possession of this prospectus and any free writing prospectus related to this offering must inform themselves about, and observe any restrictions relating to, the offering of the shares

of our common stock and the distribution of this prospectus and any such free writing prospectus outside of the United States.

Pursuant to the applicable provisions of the Fixing America's Surface Transportation Act, we are not required to file our financial information for the historical 2016 annual period or for any interim period for 2017 or 2018 because we plan to file our financial information for the year ended December 31, 2018 in the first public filing of our registration statement. While the 2016 annual financial information and 2017 and 2018 interim financial information is otherwise required by Regulation S-X, we believe that it will not be required to be included in our registration statement at the time of the first public filing.

PROSPECTUS SUMMARY

This summary highlights selected information contained in greater detail elsewhere in this prospectus and does not contain all of the information that you should consider in making your investment decision. Before investing in our common stock, you should carefully read the entire prospectus, including the sections entitled "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the consolidated financial statements and related notes thereto included elsewhere in this prospectus. As used in this prospectus, references to "we," "our," "us," "the company" and "Silk Road Medical" refer to Silk Road Medical, Inc. and, where appropriate, its wholly-owned subsidiaries unless the context requires otherwise.

Overview

We are a medical device company focused on reducing the risk of stroke and its devastating impact. We believe a key to stroke prevention is minimally-invasive and technologically advanced intervention to safely and effectively treat carotid artery disease, one of the leading causes of stroke. We have pioneered a new approach for the treatment of carotid artery disease called transcarotid artery revascularization, or TCAR, which we seek to establish as the standard of care.

TCAR relies on two novel concepts - minimally-invasive direct carotid access in the neck and high-rate blood flow reversal during the procedure to protect the brain - and combines the benefits of innovative endovascular techniques with fundamental surgical principles. TCAR using our portfolio of products has been clinically demonstrated to reduce the upfront morbidity and mortality profile of current treatment alternatives while providing a reduction in long-term stroke risk. We are the first and only company to obtain FDA approvals, secure specific Medicare reimbursement coverage, and commercialize products engineered and indicated for use in TCAR. As of December 1, 2018, more than 7,200 TCAR procedures have been performed globally, including more than 4,300 in the last 12 months.

Carotid artery disease is the progressive buildup of plaque causing narrowing of the arteries in the front of the neck supplying blood flow to the brain. Plaque can embolize, or break away from the arterial wall, travel toward the brain and interrupt critical blood supply, leading to an ischemic stroke. Carotid artery disease is one of the leading causes of stroke, and stroke is one of the most catastrophic, debilitating and costly conditions worldwide. We believe the best way to mitigate the mortality, morbidity and cost burden of stroke is to prevent strokes in the first place. Clinical evidence has demonstrated that with proper diagnosis and treatment, stroke due to carotid artery disease is mostly preventable. We believe there are approximately 4.1 million people with carotid artery disease in the United States with an estimated 403,000 new diagnoses annually, and that existing treatment options have substantial safety and effectiveness limitations.

The goal of treating carotid artery disease is to prevent a future stroke. When intervention beyond medical management is warranted, the current standard of care for reduction in stroke risk is an invasive carotid revascularization procedure called carotid endarterectomy, or CEA. While generally effective at reducing the risk of stroke over the long term, large randomized clinical trials have demonstrated that CEA is associated with an upfront risk of adverse events such as cranial nerve injury, heart attack, wound complications and even stroke and death. To address the invasiveness of CEA, transfemoral carotid artery stenting, or CAS, was first performed in 1993 and further developed to offer a minimally-invasive, catheter-based alternative for physicians and their patients. Despite reducing the risk of certain adverse events associated with CEA, multiple randomized clinical trials and other studies have shown that CAS, relative to CEA, often results in an almost two-fold increase in stroke within the first 30 days, which we believe is due to inadequate protection of the brain. We believe this represents an unacceptable trade-off relative to the current standard of care of CEA and has limited the adoption of CAS. As a result, we believe there remains an unmet clinical need to offer patients a reduction in 30-day stroke risk with fewer procedure-related adverse events, while maintaining a reduction in long-term stroke risk beyond the first 30 days.

TCAR is a minimally-invasive solution that addresses the morbidity of CEA and the 30-day stroke risk of CAS while providing a reduction in long-term stroke risk. TCAR starts with a small incision in the neck slightly above the collarbone, otherwise known as transcarotid access, through which our ENROUTE Transcarotid Stent System, or ENROUTE stent, is placed during a period of temporary high-rate blood flow reversal that is enabled by our ENROUTE Transcarotid Neuroprotection System, or ENROUTE NPS. Blood flow reversal directs embolic debris that could cause a stroke away from the brain during the procedure, while the stent braces the plaque and prevents embolization to afford a reduction in long-term stroke risk. We believe that by meeting the standard of brain protection afforded by CEA, while providing benefits commensurate with an endovascular, minimally-invasive approach, TCAR will become the preferred alternative for carotid revascularization.

Based on the estimated 403,000 new carotid artery disease diagnoses that occur annually in the United States, we believe a total annual U.S. market opportunity of approximately $2.4 billion exists for our portfolio of TCAR products. We are currently focused on penetrating and converting the approximately 152,000 carotid revascularization procedures performed each year, which we estimate to be a market conversion opportunity greater than $0.9 billion. In 2018, physicians performed approximately TCAR procedures in the United States using our products, representing approximately % of annual U.S. diagnoses.

The safety, effectiveness and clinical advantages of TCAR have been demonstrated in multiple clinical trials, post-market studies and registries that have evaluated outcomes in more than 3,500 patients in the United States and Europe to date. The results of our U.S. pivotal trial, ROADSTER, reflect the lowest reported 30-day stroke rate for any prospective, multi-center clinical trial of carotid stenting of which we are aware. In a recent contemporaneous comparative analysis, TCAR demonstrated comparable rates of in-hospital stroke and death relative to CEA despite treating a sicker, older patient population. TCAR patients also had a ten-fold reduction in risk of cranial nerve injury, spent less time in the operating room and were less likely to have a hospital stay greater than one day. When compared to CAS, TCAR demonstrated significantly lower rates of in-hospital stroke and death.

We currently market and sell our portfolio of TCAR products in the United States through a direct sales organization. Our ENROUTE NPS and ENROUTE stent have obtained CE Mark approval, allowing us to commercialize in Europe in the future. We also intend to pursue regulatory clearances in China, Japan, and select other international markets.

TCAR is reimbursed based on established current procedural technology, or CPT codes, and International Classification of Diseases, or ICD-10, codes related to carotid stenting that track to Medicare Severity Diagnosis Related Group, or MS-DRG, classifications. In September 2016, the Centers for Medicare and Medicaid Services, or CMS, made TCAR available for coverage in symptomatic and asymptomatic patients at high risk for adverse events from CEA treated at facilities participating in the TCAR Surveillance Project, an ongoing open-ended registry sponsored by the Society for Vascular Surgery through the Vascular Quality Initiative, or VQI.

We have experienced considerable growth since we began commercializing our products in the United States in late 2015. Our revenue increased from $14.3 million for the year ended December 31, 2017 to $ million for the year ended December 31, 2018, representing growth of %, and our net losses were $19.4 million and $ million for the years ended December 31, 2017 and December 31, 2018, respectively. Our accumulated deficit was $101.6 million as of December 31, 2017.

We believe the continued growth of our company will be driven by the following competitive strengths:

- Paradigm-shifting transcarotid access and flow reversal technologies,
- Compelling body of clinical and economic evidence,

- Established reimbursement coverage linked to our unique regulatory label,
- Procedure-focused approach to product innovation and service,
- Strong relationships and engagement with key medical societies and governmental agencies,
- Broad intellectual property portfolio, and
- Industry-experienced senior management team.

Our Market Opportunity

Carotid artery disease is one of the leading causes of stroke, and stroke is one of the most catastrophic, debilitating, and costly conditions worldwide. The consequences of stroke can include difficulty talking, memory loss, cognitive issues, paralysis or loss of muscle movement, inability to attend to bodily needs or care, pain, emotional problems, and death. Carotid artery disease was prevalent in approximately 4.1 million people in the United States in 2017. Each year, an estimated 403,000 patients in the United States are diagnosed with carotid artery disease severe enough to warrant treatment in order to prevent a future stroke.

Once a patient is diagnosed with carotid artery disease, medical management is recommended, which includes lifestyle modifications and pharmaceutical treatments. Carotid revascularization treatment may be recommended in addition to medical management. The treatment paradigm is influenced by the patient's symptom status, disease progression and degree of stenosis, as well as factors that may place them at higher risk of adverse events.

Existing Alternatives for Carotid Revascularization and Their Limitations

Existing treatment options for carotid revascularization procedures include CEA and CAS. As shown in multiple randomized trials, both surgical removal of plaque with CEA and stenting of plaque with CAS have demonstrated clinical effectiveness in reducing long-term stroke risk. However, CEA and CAS have been associated with serious procedure-related adverse events that present within 30 days. We believe the procedural hazards of CEA and CAS limit their wider adoption in patients with carotid artery disease treated with medical management alone.

- ***Carotid Endarterectomy, or CEA:*** CEA is an invasive surgical procedure that involves a ten- to fifteen-centimeter incision in the neck to cut open the carotid arteries and remove the plaque. Data from large randomized clinical trials have demonstrated that CEA in addition to medical management is more effective at reducing long-term stroke risk than medical management alone, which has contributed to solidifying CEA as the standard of care. However, these trials and other studies have also indicated that CEA can result in known procedure-related adverse events, including cranial nerve injuries, heart attack and even stroke and death. Given the large incision, CEA also presents a risk of wound complications, including bleeding and infection. These adverse events can also lead to long hospital stays and lengthy recovery periods that are costly to providers and payers.

- ***Transfemoral Carotid Artery Stenting, or CAS:*** CAS uses minimally-invasive techniques to place a stent in the carotid artery. In a CAS procedure, a small puncture is made in the groin and a physician navigates catheters through the arteries of the body about three feet to the neck where a stent is placed. While CAS is less invasive than CEA, multiple randomized clinical studies and real-world registries have consistently shown an almost two-fold increase in the risk of stroke within 30 days relative to CEA. As a result, CAS is performed in a minority of carotid revascularization procedures, consisting of only 17% of the estimated 152,000 carotid procedures in the United States in 2017.

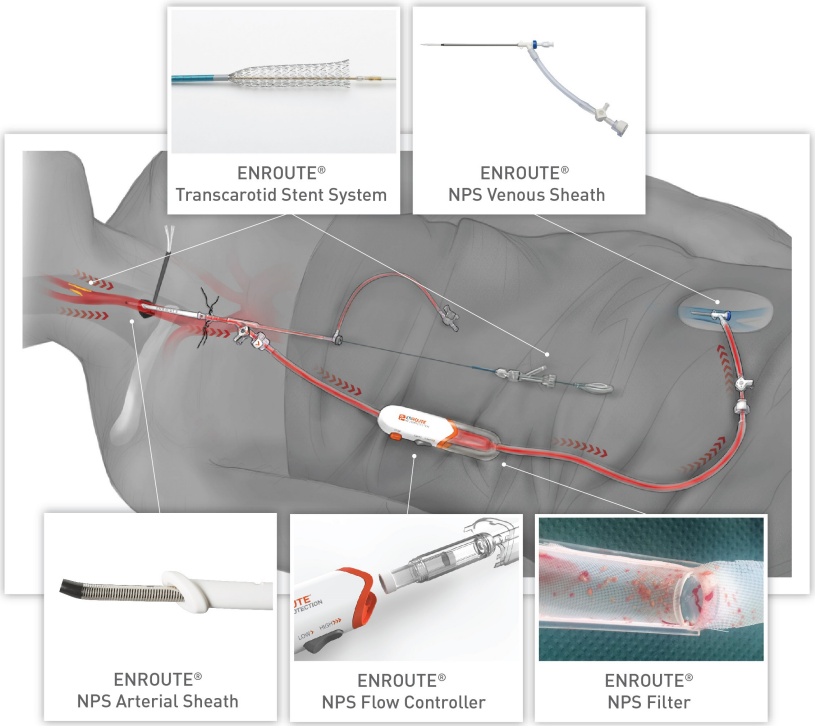
Our Solution

With our portfolio of TCAR products we have pioneered a new approach for the treatment of carotid artery disease and are seeking to establish TCAR as the standard of care.

TCAR relies on two novel concepts: minimally-invasive direct carotid access in the neck, and high-rate blood flow reversal during the procedure to protect the brain. The TCAR procedure begins with a two- to three-centimeter incision slightly above the collarbone, thereby obviating the need to maneuver catheters from the groin. A puncture is made into the carotid artery using our transcarotid access kit, after which the arterial sheath of our ENROUTE NPS is placed and then connected to the flow controller and then the venous sheath in the patient's groin, allowing for initiation of flow reversal. The pressure gradient between the high-pressure arterial system in the neck and the low-pressure venous system in the groin creates the blood flow reversal, which redirects dislodged plaque and debris away from the brain, where it is captured in an external filter in our system.

While the brain is protected by flow reversal, our guidewire is navigated across the lesion and our ENROUTE stent is delivered and placed in the carotid artery to stabilize the plaque against the wall of the artery, trapping the lesion and reducing the risk of a future stroke. After our ENROUTE stent is implanted, the blood flow is returned to normal, the ENROUTE NPS is removed, and the artery and small wound are sutured closed.

The following diagram depicts our portfolio of TCAR products:



We believe the results of our clinical studies provide compelling evidence that TCAR offers a reduction in 30-day and long-term stroke risk with a low rate of adverse events from the procedure. We believe the growing clinical evidence base from our ongoing and future studies and the TCAR Surveillance Project, an ongoing open-ended registry sponsored by the Society for Vascular Surgery, will continue to drive confidence in the procedure and support continued adoption.

We believe that TCAR offers other valuable benefits for providers and payers, including predictable and short procedure times, short hospital stays, and reduced in-hospital and 30-day adverse events. We believe these benefits can lead to more accountable care and improved provider economics and payer value.

Our Target Market

We are working to establish TCAR as the preferred alternative to both CEA and CAS for the treatment of patients with carotid artery disease. Because TCAR offers clinically proven, minimally-invasive reduction in stroke risk, we believe that TCAR offers a better solution for the approximately 152,000 patients in the United States each year who are currently treated with either CEA or CAS, which we estimate to be a near-term market conversion opportunity greater than $0.9 billion.

Currently, our ENROUTE stent is indicated for use in patients who are considered at high risk for adverse events from CEA, or high surgical risk. The labeled indications for use for our other products, including the ENROUTE NPS, are agnostic to surgical risk status. According to published studies and primary research, we believe the high surgical risk population represents approximately two-thirds, or over 100,000, of the approximately 152,000 patients treated for carotid artery disease with either CEA or CAS in the United States each year. We are currently focused on clinical development activities to support label expansion for our ENROUTE stent to patients who are at standard risk for adverse events from CEA, or standard surgical risk. We would then seek an associated expansion in CMS reimbursement coverage.

Additionally, we believe that as our technology becomes more widely adopted, TCAR may become a compelling alternative for patients who are treated with medical management alone each year. As a result, we believe the potential addressable opportunity for TCAR includes the estimated 403,000 individuals in the United States who are diagnosed with carotid artery disease each year, representing a total U.S. target market opportunity of approximately $2.4 billion annually.

While our current commercial focus is on the U.S. market, our ENROUTE stent and ENROUTE NPS have obtained CE Mark approval, allowing us to commercialize in Europe in the future. We also intend to pursue regulatory clearances in China, Japan, and select other international markets. Carotid artery disease and stroke are prevalent, devastating and costly conditions worldwide and we estimate that a significant opportunity exists for TCAR outside the United States, as the United States represents only 10% of the estimated global incidence of ischemic stroke.

Our Growth Strategy

Our mission is to be the global leader in the treatment of carotid artery disease. We seek to establish TCAR as the standard of care for carotid revascularization by converting the base of existing CEA and CAS procedures and expanding the market to include patients treated with medical management alone. We also have a broad intellectual property platform and, in the future, we intend to leverage our expertise and the physiologic and engineering advantages made possible by our transcarotid approach to develop new products targeting procedures and vascular disease states in the heart, aortic arch and brain.

Our growth strategies include:

- Strategically expanding our U.S. sales force and marketing activities,

- Scaling professional education to drive physician use,
- Increasing TCAR adoption,
- Building our clinical evidence base,
- Broadening the indication for the ENROUTE stent and expanding reimbursement,
- Pursuing international markets, and
- Continuing our history of innovation in and beyond TCAR.

Risks Associated with our Business

Our business is subject to numerous risks and uncertainties, including those highlighted in the section entitled "Risk Factors." These risks include, but are not limited to, the following:

- We are an early-stage company with a history of net losses, we expect to incur operating losses in the future and we may not be able to achieve or sustain profitability. We have a limited history operating as a commercial company.
- We rely on, and currently sell products to enable TCAR, a single and new procedure. We have limited commercial sales experience with our portfolio of TCAR products, which makes it difficult to evaluate our current business, predict our future prospects and forecast our financial performance and growth.
- Our business is dependent upon the broad adoption of TCAR by hospitals and physicians.
- Adoption of TCAR depends upon positive clinical data and medical society recommendations, and negative clinical data or medical society recommendations would adversely affect our business.
- Our failure to adequately train physicians may lead to negative patient outcomes, affect adoption of TCAR and adversely affect our business.
- We have limited long-term data regarding the safety and effectiveness of our products, including our ENROUTE stent and TCAR generally. Any long-term data that is generated by clinical trials or otherwise involving our products may not be positive or consistent with our short-term data, which would adversely affect our business.
- TCAR involves surgical risks and is contraindicated in certain patients, which may limit adoption.
- We rely on Cardinal Health to supply the ENROUTE stent, and if Cardinal Health fails to supply the ENROUTE stent in sufficient quantities or at all, it will have a material adverse effect on our business, financial condition and results of operations.
- Our success will depend on our ability to obtain, maintain and protect our intellectual property rights.
- Changes in the regulatory environment may constrain or require us to restructure our operations, which may harm our revenue and operating results.

Emerging Growth Company Status

We are an “emerging growth company,” as defined in the Jumpstart Our Business Startups Act of 2012. As such, we are eligible for exemptions from various reporting requirements applicable to other public companies that are not emerging growth companies, including, but not limited to, presenting only two years of audited financial statements in addition to any required unaudited interim financial statements with correspondingly reduced “Management’s Discussion and Analysis of Financial Condition and Results of Operations” disclosure in this prospectus, not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, reduced disclosure obligations regarding executive compensation, an exemption from the requirements to obtain a non-binding advisory vote on executive compensation or golden parachute arrangements, and extended transition periods for complying with new or revised accounting standards. We will remain an emerging growth company until the earlier of (1) the last day of the fiscal year following the fifth anniversary of the completion of this offering, (2) the last day of the fiscal year in which we have total annual revenue of more than $1.07 billion, (3) the date on which we are deemed to be a large accelerated filer, which means the market value of our common stock that is held by non-affiliates exceeds $700 million as of the prior June 30th, and (4) the date on which we have issued more than $1.0 billion in non-convertible debt securities during the prior three-year period. We have irrevocably elected not to avail ourselves of the exemption from new or revised accounting standards and, therefore, are subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

Company Information

We were incorporated in Delaware on March 21, 2007 as Silk Road Medical, Inc. Our principal executive offices are located at 1213 Innsbruck Drive, Sunnyvale, CA 94089, and our telephone number is (408) 720-9002. Our website address is www.silkroadmed.com. The information on, or that may be accessed through, our website is not incorporated by reference into this prospectus and should not be considered a part of this prospectus.

In addition, to the extent that we continue to qualify as a "smaller reporting company," as such term is defined in Rule 12b-2 under the Securities Exchange Act of 1934, after we cease to qualify as an emerging growth company, certain of the exemptions available to us as an emerging growth company may continue to be available to us as a smaller reporting company.

Trademarks

“Silk Road Medical,” the “Silk Road Medical” logo, “Enroute” and the “Enroute” logo, and "Enhance" are trademarks or registered trademarks of our company. Our logo and our other tradenames, trademarks and service marks appearing in this prospectus are our property. Other tradenames, trademarks and service marks appearing in this prospectus are the property of their respective owners. Solely for convenience, our trademarks and tradenames referred to in this prospectus appear without the ™ or ® symbol, but those references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights, or the right of the applicable licensor to these trademarks and tradenames.

THE OFFERING

Common stock offered by us	shares
Common stock outstanding after this offering	shares
Underwriters' option to purchase additional shares	The selling stockholders have granted the underwriters a 30-day option to purchase up to additional shares of Common Stock at the public offering price, less the underwriting discounts and commissions.
Use of proceeds	We estimate that the net proceeds to us from this offering will be approximately $ million, assuming an initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. We intend to use the net proceeds from this offering to expand our sales force and operations, increase our research and development activities, conduct or sponsor clinical studies and trials, expand internationally, and provide for working capital and other general corporate purposes. We may use a portion of the net proceeds to acquire complementary products, technologies, intellectual property or businesses; however, we currently do not have any agreements or commitments to complete any such transactions and are not involved in negotiations regarding such transactions. We will not receive any net proceeds from the sale of shares of common stock by the selling stockholders if the underwriters exercise their option to purchase additional shares, which are expected to be approximately $ million if such option is exercised in full. See "Use of Proceeds."
Risk factors	See "Risk Factors" beginning on page 12 and the other information included in this prospectus for a discussion of factors you should carefully consider before deciding to invest in our common stock.
Proposed NASDAQ Stock Market symbol	SILK

We refer to our Series A redeemable convertible preferred stock, Series A-1 redeemable convertible preferred stock, Series B redeemable convertible preferred stock and Series C redeemable convertible preferred stock as our convertible preferred stock in this prospectus, as well as for financial reporting purposes and in the financial tables included in this prospectus, as more fully explained in Note 8 to our audited consolidated financial statements. In this prospectus (as well as for financial reporting purposes and in the financial tables included in this prospectus as more fully described in Note 8 to our audited consolidated financial statements), we refer to our outstanding warrants as warrants to purchase shares of redeemable convertible preferred stock.

The number of shares of common stock that will be outstanding after this offering is based on shares of common stock outstanding, assuming the conversion of all of our outstanding shares of convertible preferred stock and the exercise of outstanding warrants to purchase shares of convertible preferred stock, in each case into common stock upon completion of this offering, as of December 31, 2018 and excludes:

- shares of our common stock issuable upon the exercise of options to purchase shares of our common stock outstanding as of December 31, 2018, with a weighted-average exercise price of $ per share;
- shares of our common stock issuable upon the exercise of options to purchase shares of our common stock granted after December 31, 2018, with a weighted-average exercise price of $ per share; and
- shares of common stock reserved for future grants under our stock-based compensation plans, consisting of:
  - shares of common stock reserved for future grants under our 2007 Stock Plan, which shares will be added to the shares to be reserved under our 2019 Equity Incentive Plan, which will become effective immediately prior to the effective date of this registration statement;
  - shares of common stock reserved for future grants under our 2019 Equity Incentive Plan, which will become effective immediately prior to the effective date of this registration statement; and
  - shares of common stock reserved for future issuance under our 2019 Employee Stock Purchase Plan, which will become effective immediately prior to the effective date of this registration statement.

In addition, unless otherwise indicated, all information in this prospectus assumes:

- a for reverse split of our capital stock to be effected prior to this offering;
- the conversion, in accordance with our existing amended and restated certificate of incorporation, of all shares of convertible preferred stock outstanding as of December 31, 2018 into an aggregate of shares of common stock upon the completion of this offering;
- the exercise of outstanding warrants to purchase shares of convertible preferred stock into common stock upon completion of this offering, as of December 31, 2018 into an aggregate of shares of common stock upon the completion of this offering;
- no exercise by the underwriters' of their option to purchase up to an additional shares of common stock from the selling stockholders in this offering; and
- the adoption, filing and effectiveness of our amended and restated certificate of incorporation and amended and restated bylaws prior to the completion of this offering.

SUMMARY CONSOLIDATED FINANCIAL DATA

The following tables set forth a summary of our historical consolidated financial data as of and for the periods indicated. We have derived the summary consolidated statements of operations data for the years ended December 31, 2017 and 2018 and the consolidated balance sheet data as of December 31, 2018 from our audited consolidated financial statements that are included elsewhere in this prospectus. You should read this data together with our consolidated financial statements and related notes thereto included elsewhere in this prospectus and the information under the captions "Selected Consolidated Financial Data" and "Management's Discussion and Analysis of Financial Condition and Results of Operations." The summary consolidated financial data included in this section are not intended to replace the consolidated financial statements and related notes thereto included elsewhere in this prospectus and are qualified in their entirety by the consolidated financial statements and related notes thereto included elsewhere in this prospectus. Our historical results are not necessarily indicative of our future results.

Consolidated Statements of Operations Data:

	Years Ended December 31,	
(in thousands, except share and per share data)	**2017**	**2018**
Revenue	$ 14,258	$
Cost of goods sold	5,129	
Gross profit	9,129	
Operating expenses:		
Research and development	7,242	
Selling, general and administrative	20,261	
Total operating expenses	27,503	
Loss from operations	(18,374)	
Interest income (expense), net	(3,909)	
Other income (expense), net	2,927	
Net loss	(19,356)	
Net loss attributable to non-controlling interest	—	
Net loss attributable to Silk Road Medical, Inc. common stockholders	$ (19,356)	$
Net loss per share, basic and diluted[(1)]	$ (16.51)	$
Weighted average common shares used to compute net loss per share, basic and diluted[(1)]	1,172,307	
Pro forma net loss per share, basic and diluted (unaudited) [(1)]		
Pro forma weighted average common shares used to compute net loss per share, basic and diluted (unaudited)[(1)]		

(1) See Note 2 to our consolidated financial statements for further details on the calculation of our historical and pro forma net loss per share, basic and diluted, and the weighted-average number of shares used in the per share amounts.

Consolidated Balance Sheet Data:

(in thousands)	As of December 31, 2018		
	Actual	**Pro Forma[1]**	**Pro Forma As Adjusted[2][3]**
			(unaudited)
Cash and cash equivalents	$	$	$
Working capital[4]			
Total assets			
Long-term debt			
Convertible preferred stock warrant liability			
Convertible preferred stock			
Accumulated deficit			
Total stockholders' equity (deficit)			

(1) Reflects (i) the conversion of all of our outstanding shares of convertible preferred stock into an aggregate of shares of our common stock, (ii) the exercise of outstanding warrants to purchase shares of convertible preferred stock into shares of common stock and the related reclassification of our convertible preferred stock warrant liability to stockholders' equity, and (iii) the filing and effectiveness of our amended and restated certificate of incorporation, in each case, immediately upon completion of this offering.

(2) Reflects the pro forma adjustments described in footnote (1) above and the sale and issuance of shares of common stock by us in this offering, based upon the assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

(3) A $1.00 increase (decrease) in the assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) the pro forma as adjusted amount of each of cash and cash equivalents, working capital, total assets and total stockholders' equity by approximately $ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same, and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, an increase (decrease) of 1.0 million shares in the number of shares of common stock offered would increase (decrease) each of cash and cash equivalents, working capital, total assets and total stockholders' equity by approximately $ million, assuming the initial public offering price remains the same, and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. The pro forma information discussed above is illustrative only and will be adjusted based on the actual initial public offering price, the number of shares we sell and other terms of this offering that will be determined at pricing.

(4) We define working capital as current assets less current liabilities.

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should consider carefully the risks and uncertainties described below, together with all of the other information in this prospectus, including the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our financial statements and related notes thereto included elsewhere in this prospectus, before deciding whether to invest in shares of our common stock. The risks described below are not the only ones facing us. The occurrence of any of the following risks or additional risks and uncertainties not presently known to us or that we currently believe to be immaterial could materially and adversely affect our business, financial condition, results of operations and future prospects. In that event, the market price of our common stock could decline, and you could lose all or part of your investment. Please also see "Cautionary Notes Regarding Forward-Looking Statements" and "Market, Industry and Other Data."

Risks Related to Our Business

We are an early-stage company with a history of net losses, we expect to incur operating losses in the future and we may not be able to achieve or sustain profitability. We have a limited history operating as a commercial company.

We have incurred net losses since our inception in March 2007. For the year ended December 31, 2017 and 2018, we had a net loss of $19.4 million, and $ million, respectively, and we expect to continue to incur additional losses in the future. As of December 31, 2017, we had an accumulated deficit of $101.6 million. To date, we have financed our operations primarily through equity and debt financings and from sales of our portfolio of TCAR products that enable transcarotid artery revascularization, or TCAR. The losses and accumulated deficit have primarily been due to the substantial investments we have made to develop our products, as well as for costs related to general research and development, including clinical and regulatory initiatives to obtain marketing approval, sales and marketing efforts and infrastructure improvements.

Over the next several years, we expect to continue to devote a substantial amount of our resources to expand commercialization efforts and increase adoption of TCAR using our products, improve reimbursement for TCAR, and develop additional products. In addition, as a public company, we will incur significant legal, accounting and other expenses that we did not incur as a private company. Accordingly, we expect to continue to incur operating losses for the foreseeable future and we cannot assure you that we will achieve profitability in the future or that, if we do become profitable, we will sustain profitability. Our failure to achieve and sustain profitability in the future will make it more difficult to finance our business and accomplish our strategic objectives, which would have a material adverse effect on our business, financial condition and results of operations and cause the market price of our common stock to decline. In addition, failure of our products to significantly penetrate the target markets would negatively affect our business, financial condition and results of operations.

We rely on, and currently sell products to enable, TCAR, a single and new procedure. We have limited commercial sales experience regarding TCAR, which makes it difficult to evaluate our current business, predict our future prospects and forecast our financial performance and growth.

We fully commercialized our products in the United States in 2016 and therefore do not have a long history operating as a commercial company. To date, all of our revenue has been derived, and we expect it to continue to be derived in the near term, from sales of our products that enable TCAR. TCAR is a new treatment option for certain patients diagnosed with carotid artery disease and, as a result, physician awareness of TCAR and our products, and experience with TCAR and our products, is limited. As a result, our products have limited product and brand recognition and TCAR has limited recognition within the medical industry. The novelty of TCAR and our products that enable the procedure, together with our limited commercialization experience, make it difficult to evaluate our current business and predict our

future prospects. A number of factors that are outside of our control may contribute to fluctuations in our financial results, including:

- Physician and hospital demand for our products and adoption of TCAR, including the rate at which physicians recommend our products and TCAR to their patients;
- Positive or negative media coverage, or public, patient and/or physician perception, of our products and TCAR or competing products and procedures;
- Any safety or effectiveness concerns that arise regarding our products or TCAR;
- Unanticipated delays in product development or product launches;
- Our ability to maintain our current or obtain further regulatory clearances or approvals;
- Delays in, or failure of, product and component deliveries by our third-party suppliers; and
- Introduction of new products or procedures for treating carotid artery disease that compete with our products.

It is therefore difficult to predict our future financial performance and growth, and such forecasts are inherently limited and subject to a number of uncertainties. If our assumptions regarding the risks and uncertainties we face, which we use to plan our business, are incorrect or change due to circumstances in our business or our markets, or if we do not address these risks successfully, our operating and financial results could differ materially from our expectations and our business could suffer.

In addition, because we devote substantially all of our resources to our products that enable TCAR and rely on our products and the adoption of TCAR as our sole source of revenue, any factors that negatively impact our products or TCAR, or result in a decrease in sales of products, could have a material adverse effect on our business, financial condition and results of operations.

Our business is dependent upon the broad adoption of TCAR by hospitals and physicians.

To date, a substantial majority of our product sales and revenue have been derived from a limited number of hospitals and physicians who have adopted TCAR. Our future growth and profitability largely depend on our ability to increase physician awareness of TCAR and on the willingness of physicians to adopt our products and TCAR, and to recommend the procedure to their patients. Physicians may not adopt our products unless they are able to determine, based on experience, clinical data, medical society recommendations and other analyses, that our products provide a safe and effective treatment alternative for carotid artery disease. Even if we are able to raise awareness among physicians, physicians tend to be slow in changing their medical treatment practices and may be hesitant to select our products or TCAR for recommendation to patients for a variety of reasons, including:

- Long-standing relationships with competing companies and distributors that sell other products, such as stents and embolic protection devices for transfemoral carotid artery stenting, or CAS, and their competitive response and negative selling efforts;
- Lack of experience with our products and concerns that we are relatively new to market;
- Perceived liability risk generally associated with the use of new products and procedures;
- Lack or perceived lack of sufficient clinical evidence, including long-term data, supporting clinical benefits;
- Reluctance to change to or use new products and procedures;
- Perceptions that our products are unproven; and

- Time and skill commitment that may be required to gain familiarity with TCAR and our products.

Physicians play a significant role in determining the course of a patient's treatment for carotid artery disease and, as a result, the type of treatment that will be recommended or provided to a patient. We focus our sales, marketing and education efforts primarily on vascular surgeons, and aim to educate referring physicians such as vascular surgeons, cardiologists, radiologists, neurologists, neurosurgeons and general practitioners regarding the patient population that would benefit from TCAR. However, we cannot assure you that we will achieve broad education or market acceptance among these practitioners. For example, if diagnosing physicians that serve as the primary point of contact for patients are not made aware of TCAR, they may not refer patients to physicians for treatment using our products, and those patients may instead not seek treatment at all or may be treated with alternative procedures. In addition, some physicians may choose to utilize TCAR on only a subset of their total patient population or may not adopt TCAR. Further, as TCAR is a new procedure, it may not fit into the workstreams of certain physicians. If we are not able to effectively demonstrate that TCAR is beneficial in a broad range of patients, adoption of TCAR will be limited and may not occur as rapidly as we anticipate or at all, which would have a material adverse effect on our business, financial condition and results of operations. We cannot assure you that TCAR or our products will achieve broad market acceptance among hospitals and physicians. Any failure of TCAR or our products to satisfy demand or to achieve meaningful market acceptance and penetration will harm our future prospects and have a material adverse effect on our business, financial condition and results of operations.

In addition, the medical device industry's relationship with physicians is under increasing scrutiny by the Health and Human Services Office of the Inspector General, or OIG, the Department of Justice, or DOJ, state attorneys general, and other foreign and domestic government agencies. Our failure to comply with laws, rules and regulations governing our relationships with physicians, or an investigation into our compliance by the OIG, DOJ, state attorneys general or other government agencies, could significantly harm our business.

In most cases, before physicians can use our products for the first time, our products must be approved for use by a hospital's new product or value analysis committee, or the staff of a hospital or health system. Following such approval, we may be required to enter into a purchase contract. Such approvals or requirements to enter into a purchase contract could deter or delay the use of our products by physicians. We cannot provide assurance that our efforts to obtain such approvals, enter into purchase contracts, or generate adoption will be successful or increase the use of our products, and if we are not successful, it could have a material adverse effect on our business, financial condition and results of operations.

Adoption of TCAR depends upon positive clinical data and medical society recommendations, and negative clinical data or medical society recommendations would adversely affect our business.

The rate of adoption of TCAR and sales of our products that facilitate the procedure is heavily influenced by clinical data. Although the Society for Vascular Surgery's TCAR Surveillance Project contains real world data comparing procedures, we have not conducted head-to-head clinical trials to compare TCAR to the procedures historically available to patients, such as carotid endarterectomy, or CEA, or CAS, which may limit the adoption of TCAR. Additionally, the Carotid Revascularization and Medical Management for Asymptomatic Carotid Stenosis clinical trial is currently being conducted by the National Institutes of Health, which compares the effectiveness of each of CEA and CAS with best medical management solutions. Although enrollment is not expected to be completed until at least 2020, interim results could be released at any time. At the completion of the four-year follow-up, the trial could conclude that medical management alone achieves the same therapeutic results as surgical intervention, which would have an adverse impact on the adoption of TCAR. Finally, our competitors and third parties may also conduct clinical trials of our products without our participation. Unfavorable or inconsistent clinical data from existing or future clinical trials conducted by us, our competitors or third parties, the

interpretation of our clinical data or findings of new or more frequent adverse events, could have a material adverse effect on our business, financial condition and results of operations.

As physicians are influenced by guidelines issued by physician organizations, such as the Society for Vascular Surgery, the rate of adoption of TCAR and sales of our products that facilitate the procedure is also heavily influenced by medical society recommendations. We believe the Society for Vascular Surgery's Clinical Practice Guidelines, or SVS Guidelines, are of particular importance to the broader market acceptance of TCAR. The most current SVS Guidelines on the management of carotid artery disease, published in 2011, do not specifically mention TCAR as a treatment for carotid artery disease, but generally discuss CAS and embolic protection methods, including flow reversal. If the next version of the SVS Guidelines do not recommend TCAR, or if the Society for Vascular Surgery issues a negative statement regarding TCAR, physicians may not adopt or continue to use TCAR or our products, which would have a material adverse effect on our business, financial condition and results of operations. Additionally, if key opinion leaders who currently support TCAR cease to recommend TCAR or our products, our business, financial condition and results of operations will be adversely affected.

Adoption of TCAR depends upon appropriate physician training, and inadequate training may lead to negative patient outcomes, affect adoption of TCAR and adversely affect our business.

The success of TCAR depends in part on the skill of the physician performing the procedure and on our customers' adherence to appropriate patient selection and proper techniques provided in training sessions conducted by our training faculty. For example, we train our customers to ensure correct use of our ENROUTE NPS and proper deployment of our ENROUTE stent. However, physicians rely on their previous medical training and experience when performing TCAR, and we cannot guarantee that all such physicians will have necessary surgical skills to perform the procedure. We do not control which physicians perform TCAR or how much training they receive, and physicians who have not completed our training sessions may nonetheless attempt to perform TCAR. If physicians perform TCAR in a manner that is inconsistent with its labeled indications, with components that are not our products or without adhering to or completing our training sessions, their patient outcomes may not be consistent with the outcomes achieved in our clinical trials. This result may negatively impact the perception of patient benefit and safety and limit adoption of TCAR and our products that facilitate the procedure, which would have a material adverse effect on our business, financial condition and results of operations.

We have limited long-term data regarding the safety and effectiveness of our products, including our ENROUTE stent and TCAR generally.

Our products enable TCAR, which is a novel procedure, and our success depends on acceptance of our products and TCAR by the medical industry, including physicians and hospitals, as being safe and effective, and improving clinical outcomes. Important factors upon which the effectiveness of our products, including our ENROUTE stent, will be measured are long-term data regarding the risk of stroke and death and the rate of restenosis following TCAR. The long-term clinical benefits of procedures that use our products are not known. There is limited data on the long-term performance of carotid stents beyond three years after implantation. We have limited data on the ENROUTE stent up to one year. Any failure of our stent or in-stent restenosis of the carotid artery following deployment of the stent could deter physicians from adopting our products and could have a material adverse effect on our business, financial condition and results of operations.

The results of short-term clinical experience of our products do not necessarily predict long-term clinical benefit. We believe that physicians will compare the rates of long-term risk of stroke and death, as well as restenosis and reintervention for procedures using our products, against alternative procedures, such as CEA and CAS. If the long-term data do not meet physicians' expectations, or if long-term data indicate that our products are not as safe or effective as other treatment options or as current short-term data would suggest, our products may not become widely adopted, physicians may recommend alternative treatments for their patients and our business our be harmed.

If we are not able to maintain adequate levels of third-party coverage and reimbursement for the procedures using our products, if third parties rescind or modify their coverage or delay payments, or if patients are left with significant out-of-pocket costs, it would have a material adverse effect on our business, financial condition and results of operations.

TCAR is currently covered under certain circumstances for certain patients by the Centers for Medicare and Medicaid Services, and has been covered by some commercial payers, independent networks and other entities not governed by the National Coverage Determination. In the United States, we derive our revenue from sales to hospital and medical centers, which typically bill all or a portion of the costs and fees associated with our products to various third-party payers, including Medicare, Medicaid, private commercial insurance companies, health maintenance organizations and other healthcare-related organizations, and then bill patients for any applicable deductibles or co-payments. For example, our contracts are with the hospital and medical centers that purchase our products and conduct the procedure and not with the commercial payers. As a result, access to adequate coverage and reimbursement for our products by third-party payers is essential to the acceptance of our products by our customers.

However, in the United States, there is no uniform policy of coverage and reimbursement for medical device products and services among third-party payers, so coverage and reimbursement can differ significantly from payer to payer, and each coverage decision and level of reimbursement is independent. As a result, third-party reimbursement may not be available or adequate for our products, and there is no guarantee that we will be able to maintain our current levels of coverage or reimbursement or be able to expand coverage to other insurance carriers. Further, payers continually review new technologies for possible coverage and can, without notice, deny coverage for products and procedures or delay coverage approval until further clinical data is available. As a result, the coverage determination process is often a time-consuming and costly process that may require us to provide scientific and clinical support for the use of our products to each payer separately, with no assurance that coverage and adequate reimbursement will be obtained, or maintained if obtained. If third-party reimbursement is not available or adequate for our products, or if there is any decline in the amount that payers are willing to reimburse our customers for our products, new customers may not adopt, or may reduce their rate of adoption of, our products and we could experience additional pricing pressure for us, any of which could have a material adverse effect on our business, financial condition and results of operations.

Our products are reimbursed primarily on a per-patient prior authorization basis for patients covered by commercial insurers and on a medical necessity basis for most patients covered by Medicare. Based on reimbursement information regarding CEA and CAS, we estimate that approximately 75% of TCAR procedures are reimbursed by Medicare/Medicaid and approximately 25% are reimbursed by commercial payers. Current Procedure Terminology, or CPT, codes are developed and issued by the American Medical Association, or AMA. The U.S. Centers for Medicare & Medicaid Services, or CMS, determines Medicare payment based on formulas within the Medicare Resource-Based Relative Value Scale, which uses Relative Value Units, or RVUs. The RVU totals for a CPT code are determined and periodically updated by an AMA/Specialty Society RVS Update Committee, or RUC. In the future, reimbursement for our products may change based on a new RUC review. If the Society for Vascular Surgery recommended changes to the RVUs or did not support the use of TCAR or the Medicare National Coverage Determination no longer covers TCAR, there would be a material adverse effect on our business, financial condition and results of operations. If this were to occur, commercial insurance companies could also adjust payment rates at which they reimburse our products. Other carotid artery disease treatments, such as CEA, may be more widely covered or subject to different co-pay policies and requirements. If patients are required to cover all or a part of the cost of our products out-of-pocket, they may be less likely to elect to use our products and/or undergo the procedure. Additionally, patients may elect to reduce or defer out-of-pocket costs during times of economic uncertainty or periods of legislative change. If hospital, physician and/or patient demand for TCAR, and thus our products that facilitate the procedure, is adversely affected by third-party reimbursement policies and decisions, it will have a material adverse effect on our business, financial condition and results of operations.

Internationally, reimbursement systems in foreign markets vary significantly by country and by region within some countries, and reimbursement approvals must be obtained on a country-by-country basis. In certain international markets, a product must be approved for reimbursement before it can be approved for sale in that country. Additionally, many international markets have government-managed healthcare systems that control reimbursement for products and procedures. In most markets there are both private insurance systems and government-managed systems. If sufficient levels of coverage and reimbursement are not available for our current or future products, in either the United States or internationally, the demand for our products and our revenues will be adversely affected.

Additionally, when payers combine their operations, the combined company may elect to reimburse for TCAR at the lowest rate paid by any of the participants in the consolidation or use its increased size to negotiate reduced rates. If one of the payers participating in the consolidation does not reimburse for TCAR at all, the combined company may elect not to reimburse for TCAR, which would adversely impact our business, financial condition and results of operations.

If we fail to comply with our obligations in our intellectual property license from Cardinal Health, we could lose license rights that are important to our business.

We are a party to a license agreement with Cordis Corporation, or Cordis, which was acquired by Cardinal Health, under which Cordis has granted us a worldwide, non-exclusive, royalty-bearing license to certain of its intellectual property related to the PRECISE® carotid stent for transcervical treatment of carotid artery disease with an intravascular stent for certain applications for accessing blood vessels through the neck and cervical area. This license agreement imposes, and we expect that any future license agreements will impose, certain diligence, royalty, and other obligations on us. If we fail to comply with these obligations, our licensors, including Cardinal Health, may have the right to reduce the scope of our rights or terminate these agreements, in which event we may not be able to develop and market any product that is covered by these agreements. Termination of this license for failure to comply with such obligations or for other reasons, or reduction or elimination of our licensed rights under it or any other license, may result in our having to negotiate new or reinstated licenses on less favorable terms or our not having sufficient intellectual property rights to operate our business or cause us to enter into a new license for a different stent. The occurrence of such events could materially harm our business and financial condition.

The risks described elsewhere pertaining to our intellectual property rights also apply to the intellectual property rights that we in-license, and any failure by us or our licensors to obtain, maintain, defend and enforce these rights could have a material adverse effect on our business. In some cases we do not have control over the prosecution, maintenance or enforcement of the patents that we license, and may not have sufficient ability to provide input into the patent prosecution, maintenance and defense process with respect to such patents, and our licensors may fail to take the steps that we believe are necessary or desirable in order to obtain, maintain, defend and enforce the licensed patents.

We rely on Cardinal Health to supply the ENROUTE stent, and if Cardinal Health fails to supply the ENROUTE stent in sufficient quantities or at all, it will have a material adverse effect on our business, financial condition and results of operations.

We rely on Cardinal Health to manufacture the ENROUTE stent pursuant to a supply agreement between us and Cordis Corporation, which was acquired by Cardinal Health. We strive to maintain an inventory of several months' worth of ENROUTE stents to guard against potential shortfalls in supply, and we estimate that it would take one to two years to find an alternative supplier for our ENROUTE stent and multiple years to identify and seek approval for another stent, and in each case qualify it for use with our other products. In addition, Cardinal Health currently manufactures the ENROUTE stent at a facility in Juarez, Mexico, and is shifting production to a new facility in Juarez. The current political and trade relationship between the United States and Mexico is strained and may deteriorate. If Cardinal Health's ability to manufacture the ENROUTE stent is interrupted as a result, or if Cardinal Health breaches its

supply agreement with us, we may not have a sufficient number of stents for delivery to support TCAR procedures. Any shortfall in the supply of ENROUTE stents may result in lower adoption rates for TCAR, fewer TCAR procedures being performed generally, and a material adverse effect on our business, financial condition and results of operations.

TCAR involves surgical risks and is contraindicated in certain patients, which may limit adoption.

Risks of TCAR using our products include the risks that are common to endovascular procedures, including perforation, dissection, embolization, bleeding, infection, nerve injury and restenosis. Endovascular procedures occurring in the common carotid artery also include the additional risks of stroke, heart attack and death. We are aware of certain characteristics and features of TCAR that may prevent widespread market adoption, including the fact that physicians would need to adopt a new procedure, and training for physicians will be required to enable them to effectively operate our products.

Our current products are contraindicated, and therefore should not be used, in certain patients. Our ENROUTE NPS is contraindicated in patients in whom antiplatelet and/or anticoagulation therapy is contraindicated; patients with uncorrected bleeding disorders; patients with severe disease of the ipsilateral common carotid artery; and patients with uncontrollable intolerance to flow reversal. Our ENROUTE stent is contraindicated in patients in whom antiplatelet and/or anticoagulation therapy is contraindicated; patients in whom the ENROUTE NPS is unable to be placed; patients with uncorrected bleeding disorders; patients with known allergies to nitinol; and patients with lesions in the ostium of the common carotid artery. Our ENHANCE peripheral access kit is contraindicated in patients with a known or suspected obstruction in the vessel. Our ENROUTE guidewire is contraindicated in patients judged not acceptable for percutaneous intervention. Additionally, patients with less than five centimeters of common carotid artery free of significant disease are not eligible for TCAR.

We have limited experience manufacturing our products in commercial quantities and we face manufacturing risks that may adversely affect our ability to manufacture products and could reduce our gross margins and negatively affect our business and operating results.

Our business strategy depends on our ability to manufacture our current and future products in sufficient quantities and on a timely basis to meet customer demand, while adhering to product quality standards, complying with regulatory quality system requirements and managing manufacturing costs. We have a facility located in Sunnyvale, California, where we assemble, inspect, package, release and ship our products. We currently produce our ENROUTE NPS at this facility, and we do not have redundant facilities. If this facility suffers damage, or a force majeure event, this could materially impact our ability to operate.

We are also subject to numerous other risks relating to our manufacturing capabilities, including:

- quality and reliability of components, sub-assemblies and materials that we source from third-party suppliers, who are required to meet our quality specifications, all of whom are our single source suppliers for the products they supply;
- our inability to secure components, sub-assemblies and materials in a timely manner, in sufficient quantities or on commercially reasonable terms;
- our inability to maintain compliance with quality system requirements or pass regulatory quality inspections;
- our failure to increase production capacity or volumes to meet demand;

- our inability to design or modify production processes to enable us to produce future products efficiently or implement changes in current products in response to design or regulatory requirements; and
- difficulty identifying and qualifying, and obtaining new regulatory approvals, for alternative suppliers for components in a timely manner.

These risks are likely to be exacerbated by our limited experience with our current products and manufacturing processes. As demand for our products increases, we will have to invest additional resources to purchase components, sub-assemblies and materials, hire and train employees and enhance our manufacturing processes. If we fail to increase our production capacity efficiently, we may not be able to fill customer orders on a timely basis, our sales may not increase in line with our expectations and our operating margins could fluctuate or decline. In addition, although we expect some of our products in development to share product features, components, sub-assemblies and materials with our existing products, the manufacture of these products may require modification of our current production processes or unique production processes, the hiring of specialized employees, the identification of new suppliers for specific components, sub-assemblies and materials or the development of new manufacturing technologies. It may not be possible for us to manufacture these products at a cost or in quantities sufficient to make these products commercially viable or to maintain current operating margins, all of which could have a material adverse effect on our business, financial condition and results of operations.

We depend on a limited number of single source suppliers to manufacture our components, sub-assemblies and materials, which makes us vulnerable to supply shortages and price fluctuations that could have a material adverse effect on our business, financial condition and results of operations.

We rely on single source suppliers for all of the components, sub-assemblies and materials for our products. These components, sub-assemblies and materials are critical and there are relatively few alternative sources of supply. We have not qualified or obtained necessary regulatory approvals for additional suppliers for most of these components, sub-assemblies and materials and we do not carry a significant inventory of these items. While we believe that alternative sources of supply may be available, we cannot be certain whether they will be available if and when we need them, and that any alternative suppliers would be able to provide the quantity and quality of components and materials that we would need to manufacture our products if our existing suppliers were unable to satisfy our supply requirements. To utilize other supply sources, we would need to identify and qualify new suppliers to our quality standards and obtain any additional regulatory approvals for these suppliers, which could result in manufacturing delays and increase our expenses.

Our dependence on third-party suppliers subjects us to a number of risks that could impact our ability to manufacture our products and harm our business, including:

- interruption of supply resulting from modifications to, or discontinuation of, a supplier’s operations;
- delays in product shipments resulting from uncorrected defects, reliability issues or a supplier’s failure to produce components that consistently meet our quality specifications;
- price fluctuations due to a lack of long-term supply arrangements with our suppliers for key components;
- inability to obtain adequate supply in a timely manner or on commercially reasonable terms;
- difficulty identifying and qualifying alternative suppliers for components in a timely manner;

- inability of suppliers to comply with applicable provisions of the QSR or other applicable laws or regulations enforced by the FDA and state regulatory authorities;
- inability to ensure the quality of products manufactured by third parties;
- production delays related to the evaluation and testing of products from alternative suppliers and corresponding regulatory qualifications; and
- delays in delivery by our suppliers due to changes in demand from us or their other customers.

Although we require our third-party suppliers to supply us with components that meet our specifications and comply with applicable provisions of the QSR and other applicable legal and regulatory requirements in our agreements and contracts, and we perform incoming inspection, testing or other acceptance activities to assure the components meet our requirements, there is a risk that our suppliers will not always act consistent with our best interests, and may not always supply components that meet our requirements, or supply components in a timely manner.

Our results of operations could be materially harmed if we are unable to accurately forecast customer demand for our products and manage our inventory.

We seek to maintain sufficient levels of inventory in order to protect ourselves from supply interruptions, but keep limited components, sub-assemblies, materials and finished products on hand. To ensure adequate inventory supply and manage our operations with our third-party manufacturers and suppliers, we forecast anticipated materials requirements and demand for our products in order to predict inventory needs and then place orders with our suppliers based on these predictions. Our ability to accurately forecast demand for our products could be negatively affected by many factors, including our limited historical commercial experience regarding TCAR, rapid growth, failure to accurately manage our expansion strategy, product introductions by competitors, an increase or decrease in customer demand for our products, our failure to accurately forecast customer acceptance of new products, unanticipated changes in general market conditions or regulatory matters and weakening of economic conditions or consumer confidence in future economic conditions.

Inventory levels in excess of customer demand may result in a portion of our inventory becoming obsolete or expiring, as well as inventory write-downs or write-offs, which would impair the strength of our brand. Conversely, if we underestimate customer demand for our products or our own requirements for components, subassemblies and materials, our third-party manufacturers and suppliers may not be able to deliver components, sub-assemblies and materials to meet our requirements, which could result in inadequate inventory levels or interruptions, delays or cancellations of deliveries to our customers, any of which would damage our reputation, customer relationships and business. In addition, several components, sub-assemblies and materials incorporated into our products require lengthy order lead times, and additional supplies or materials may not be available when required on terms that are acceptable to us, or at all, and our third-party manufacturers and suppliers may not be able to allocate sufficient capacity in order to meet our increased requirements, which could have an adverse effect on our ability to meet customer demand for our products and our results of operations.

Our quarterly and annual results may fluctuate significantly and may not fully reflect the underlying performance of our business.

Our quarterly and annual results of operations, including our revenue, profitability and cash flow, may vary significantly in the future, and period-to-period comparisons of our operating results may not be meaningful. Accordingly, the results of any one quarter or period should not be relied upon as an indication of future performance. Our quarterly and annual financial results may fluctuate as a result of a variety of factors, many of which are outside our control and, as a result, may not fully reflect the underlying performance of our business. Fluctuations in quarterly and annual results may decrease the value of our common stock. Because our quarterly results may fluctuate, period-to-period comparisons

may not be the best indication of the underlying results of our business and should only be relied upon as one factor in determining how our business is performing.

We have a limited total addressable market based on our current labeling restrictions.

The total addressable market for TCAR is limited by a number of factors. Approximately 152,000 patients with carotid artery disease in the United States receive treatment in the form of surgical or endovascular intervention each year. Of this group, we estimate that approximately one-third would be outside the scope of the FDA-approved labeling for the ENROUTE stent, as those patients are not deemed to be at high risk for adverse events from CEA, or high surgical risk. The current FDA-approved labeling for the ENROUTE stent is limited to high risk patients. Patients at high risk for adverse events from CEA are defined as having significant comorbidities or anatomic risk factors, or advanced age, that would make them poor candidates for CEA. Furthermore, the safety and effectiveness of TCAR has not been established for certain patients. For example, the FDA-cleared labeling for the ENROUTE NPS states that patients should have at least five centimeters of common carotid artery free of significant disease for initial access to the artery and positioning of the ENROUTE sheath. In addition, per the FDA-approved labeling for the ENROUTE stent, TCAR is limited to asymptomatic patients with carotid artery stenosis of at least 80% and symptomatic patients with carotid artery stenosis of at least 50%, both of which must also be high surgical risk. In addition, physicians may choose to perform CEA in patients with certain anatomical characteristics, including heavily calcified carotid arteries, calcified lesions and severe vessel tortuousity. Finally, current labeling for our products includes contraindications for certain patients, thus further reducing our total addressable market.

Full penetration of the addressable market is dependent upon labeling expansion for the ENROUTE stent.

Our products are not currently indicated for use with standard surgical risk patients. To access a larger portion of the market for carotid artery disease patients, we will need to obtain approval by the FDA for a label expansion for use of TCAR with standard surgical risk patients. Approval of this labeling expansion will require additional clinical data from clinical studies, which we intend to pursue. However, there are no guarantees that we will be able to obtain such clinical data or FDA approval of a label expansion, or that any label expansion will be sufficient to access a significantly larger portion of the market for carotid artery disease patients. If we are unable to obtain labeling expansion, it will have a material adverse effect on our business, financial condition and results of operations.

Changes in public health insurance coverage and government reimbursement rates for our products could affect the adoption of our products and our future revenue.

The federal government is considering ways to change, and has changed, the manner in which healthcare services are paid for in the United States. Individual states may also enact legislation that impacts Medicaid payments to hospitals and physicians. In addition, CMS establishes Medicare payment levels for hospitals and physicians on an annual basis, which can increase or decrease payment to such entities. Internationally, medical reimbursement systems vary significantly from country to country, with some countries limiting medical centers' spending through fixed budgets, regardless of levels of patient treatment, and other countries requiring application for, and approval of, government or third-party reimbursement. Even if we succeed in bringing our products to market in additional foreign countries, uncertainties regarding future healthcare policy, legislation and regulation, as well as private market practices, could affect our ability to sell our products in commercially acceptable quantities at acceptable prices.

Cost-containment efforts of our customers, purchasing groups and governmental organizations could have a material adverse effect on our sales and profitability.

In an effort to reduce costs, many hospitals in the United States have become members of Group Purchasing Organizations, or GPOs, and Integrated Delivery Networks, or IDNs. GPOs and IDNs

negotiate pricing arrangements with medical device companies and distributors and then offer these negotiated prices to affiliated hospitals and other members. GPOs and IDNs typically award contracts on a category-by-category basis through a competitive bidding process. Bids are generally solicited from multiple providers with the intention of driving down pricing or reducing the number of vendors. Due to the highly competitive nature of the GPO and IDN contracting processes, we may not be able to obtain new, or maintain existing, contract positions with major GPOs and IDNs. Furthermore, the increasing leverage of organized buying groups may reduce market prices for our products, thereby reducing our revenue and margins.

While having a contract with a GPO or IDN for a given product category can facilitate sales to members of that GPO or IDN, such contract positions can offer no assurance that any level of sales will be achieved, as sales are typically made pursuant to individual purchase orders. Even when a provider is the sole contracted supplier of a GPO or IDN for a certain product category, members of the GPO or IDN are generally free to purchase from other suppliers. Furthermore, GPO and IDN contracts typically are terminable without cause by the GPO or IDN upon 60 to 90 days' notice. Accordingly, the members of such groups may choose to purchase alternative products due to the price or quality offered by other companies, which could result in a decline in our revenue.

We may not be able to achieve or maintain satisfactory pricing and margins for our products.

Manufacturers of medical devices have a history of price competition, and we can give no assurance that we will be able to achieve satisfactory prices for our products or maintain prices at the levels we have historically achieved. Any decline in the amount that payers reimburse our customers for TCAR could make it difficult for customers to continue using, or to adopt, our products and could create additional pricing pressure for us. If we are forced to lower the price we charge for our products, our gross margins will decrease, which will adversely affect our ability to invest in and grow our business. If we are unable to maintain our prices, or if our costs increase and we are unable to offset such increase with an increase in our prices, our margins could erode. We will continue to be subject to significant pricing pressure, which could harm our business and results of operations.

If we are unable to manage the anticipated growth of our business, our future revenue and operating results may be harmed.

Any growth that we experience in the future will require us to expand our sales personnel and manufacturing operations and general and administrative infrastructure. In addition to the need to scale our organization, future growth will impose significant added responsibilities on management, including the need to identify, recruit, train and integrate additional employees. Rapid expansion in personnel could mean that less experienced people manufacture, market and sell our products, which could result in inefficiencies and unanticipated costs, reduced quality and disruptions to our operations. In addition, rapid and significant growth may strain our administrative and operational infrastructure. Our ability to manage our business and growth will require us to continue to improve our operational, financial and management controls, reporting systems and procedures. If we are unable to manage our growth effectively, it may be difficult for us to execute our business strategy and our business could be harmed.

As demand for our products or any of our future products increases, we will need to continue to scale our capacity, expand customer service, billing and systems processes and enhance our internal quality assurance program. We cannot assure you that any increases in scale, related improvements and quality assurance will be successfully implemented or that appropriate personnel will be available to facilitate the growth of our business. Failure to implement necessary procedures, transition to new processes or hire the necessary personnel could result in higher costs of processing data or inability to meet increased demand. If we encounter difficulty meeting market demand, quality standards or physician expectations, our reputation could be harmed and our business could suffer.

If our manufacturing facility becomes damaged or inoperable, or if we are required to vacate a facility, we may be unable to produce the products we manufacture products or we may experience delays in production or an increase in costs, which could adversely affect our results of operations.

We currently maintain our research and development, manufacturing and administrative operations in a building located in Sunnyvale, California, which is situated on or near earthquake fault lines, and we do not have redundant facilities. Should our building be significantly damaged or destroyed by natural or man-made disasters, such as earthquakes, fires or other events, it could take months to relocate or rebuild, during which time our employees may seek other positions, our research, development and manufacturing would cease or be delayed and our products may be unavailable. Moreover, the use of a new facility or new manufacturing, quality control, or environmental control equipment or systems generally requires FDA review and approval of a PMA supplement. Because of the time required to authorize manufacturing in a new facility under FDA, the State of California and non-U.S. regulatory requirements, we may not be able to resume production on a timely basis even if we are able to replace production capacity in the event we lose manufacturing capacity. While we maintain property and business interruption insurance, such insurance has limits and would only cover the cost of rebuilding and relocating and lost revenue, but not losses we may suffer due to our products being replaced by competitors' products. The inability to perform our research, development and manufacturing activities, combined with our limited inventory of materials and components and manufactured products, may cause physicians to discontinue using our products or harm our reputation, and we may be unable to reestablish relationships with such physicians in the future. Consequently, a catastrophic event at our facility could have a material adverse effect on our business, financial condition and results of operations.

Furthermore, the current lease for our manufacturing facility expires in 2024, and we may be unable to renew our lease or find a new facility on commercially reasonable terms. If we were unable or unwilling to renew at the proposed rates, relocating our manufacturing facility would involve significant expense in connection with the movement and installation of key manufacturing equipment and any necessary recertification with regulatory bodies, and we cannot assure investors that such a move would not delay or otherwise adversely affect our manufacturing activities or operating results. If our manufacturing capabilities were impaired by our move, we may not be able to manufacture and ship our products in a timely manner, which would adversely impact our business.

We have limited experience in training and marketing and selling our products, and if we fail in our training, to increase our sales and marketing capabilities or to develop broad brand awareness in a cost effective manner, our growth will be impeded and our business will suffer.

We have limited experience marketing and selling our products. We currently rely on our direct sales force to sell our products in targeted geographic regions, and any failure to maintain and grow our direct sales force could harm our business. The members of our direct sales force are highly trained and possess substantial technical expertise, which we believe is critical in driving adoption of TCAR. The members of our U.S. sales force are at-will employees. The loss of these personnel to competitors, or otherwise, could materially harm our business. If we are unable to retain our direct sales force personnel or replace them with individuals of equivalent technical expertise and qualifications, or if we are unable to successfully instill such technical expertise in replacement personnel, our revenues and results of operations could be materially harmed.

In order to generate future growth, we plan to continue to expand and leverage our sales and marketing infrastructure to increase our physician customer base and our business. Identifying and recruiting qualified personnel and training them on TCAR, on applicable federal and state laws and regulations, and on our internal policies and procedures requires significant time, expense and attention. It often takes several months or more before a sales representative is fully trained and productive. Our sales force may subject us to higher fixed costs than those of companies with competing products, such as stents, that utilize independent third parties, which could place us at a competitive disadvantage. Our

business may be harmed if our efforts to expand and train our sales force do not generate a corresponding increase in revenue, and our higher fixed costs may slow our ability to reduce costs in the face of a sudden decline in demand for our products. Any failure to hire, develop and retain talented sales personnel, to achieve desired productivity levels in a reasonable period of time or timely reduce fixed costs, could have a material adverse effect on our business, financial condition and results of operations. Our ability to increase our customer base and achieve broader market acceptance of our products will depend to a significant extent on our ability to expand our marketing efforts. We plan to dedicate significant resources to our marketing programs. Our business may be harmed if our marketing efforts and expenditures do not generate a corresponding increase in revenue. In addition, we believe that developing and maintaining broad awareness of our brand in a cost effective manner is critical to achieving broad acceptance of our products and penetrating new accounts. Brand promotion activities may not generate patient or physician awareness or increase revenue, and even if they do, any increase in revenue may not offset the costs and expenses we incur in building our brand. If we fail to successfully promote, maintain and protect our brand, we may fail to attract or retain the physician acceptance necessary to realize a sufficient return on our brand building efforts, or to achieve the level of brand awareness that is critical for broad adoption of our products.

The market for our products is highly competitive. If our competitors are able to develop or market carotid artery disease treatments that are more effective, or gain greater acceptance in the marketplace, than any products we develop, our commercial opportunities will be reduced or eliminated.

Our industry is highly competitive, subject to change and significantly affected by new product introductions and other activities of industry participants. We are initially positioning TCAR as an alternative in high risk patients to CEA and CAS. CEA has historically been performed by vascular surgeons as the primary surgical solution for carotid artery disease. The major manufacturers of products, such as patches and shunts, used in connection with CEA include LeMaitre Vascular, Getinge / Maquet, Baxter, Terumo, Gore and Edwards. Some competitors market products for use in CAS, such as peripheral access kits, stents, distal filters, guidewires, balloons and sheaths. Such companies include Abbott, Boston Scientific, Cardinal Health, Medtronic, Terumo and Gore. These technologies, other products that are in current clinical trials, new drugs or additional indications for existing drugs could demonstrate better safety, effectiveness, clinical results, lower costs or greater physician and patient acceptance.

We compete, or may compete in the future, against other companies which have longer operating histories, more established products and greater resources, which may prevent us from achieving significant market penetration or improved operating results. These companies enjoy several competitive advantages, including:

- greater financial and human capital resources;
- significantly greater name recognition;
- established relationships with vascular surgeons, referring physicians, customers and third-party payers;
- additional lines of products, and the ability to offer rebates or bundle products to offer greater discounts or incentives to gain a competitive advantage; and
- established sales, marketing and worldwide distribution networks.

Because of the size of the market opportunity for the treatment of carotid artery disease, we believe potential competitors have historically dedicated and will continue to dedicate significant resources to aggressively promote their products or develop new products. New treatment options may be developed

that could compete more effectively with our products due to the prevalence of carotid artery disease and the extensive research efforts and technological progress that exist within the market.

Defects or failures associated with our products could lead to recalls, safety alerts or litigation, as well as significant costs and negative publicity.

Our business is subject to significant risks associated with manufacture, distribution and use of medical devices that are placed inside the human body, including the risk that patients may be severely injured by or even die from the misuse or malfunction of our products caused by design flaws or manufacturing defects. In addition, component failures, design defects, off-label uses or inadequate disclosure of product-related information could also result in an unsafe condition or the injury or death of a patient. These problems could lead to a recall or market withdrawal of, or issuance of a safety alert relating to, our products and result in significant costs, negative publicity and adverse competitive pressure. The circumstances giving rise to recalls are unpredictable, and any recalls of existing or future products could have a material adverse effect on our business, financial condition and results of operations.

We provide a limited warranty that our products are free of material defects and conform to specifications, and offer to repair, replace or refund the purchase price of defective products. As a result, we bear the risk of potential warranty claims on our products. In the event that we attempt to recover some or all of the expenses associated with a warranty claim against us from our suppliers or vendors, we may not be successful in claiming recovery under any warranty or indemnity provided to us by such suppliers or vendors or that any recovery from such vendor or supplier would be adequate.

The medical device industry has historically been subject to extensive litigation over product liability claims. Operating in the area of the neck with the brain as the end organ is dangerous and presents risks of adverse events such as arterial dissection, cranial nerve injury, stroke and death, which subject us to a greater risk of being involved in litigation than companies with products used in less critical areas of the body. We may be subject to product liability claims if our products cause, or merely appear to have caused, an injury or death, even if due to physician error. In addition, an injury or death that is caused by the activities of our suppliers, such as those that provide us with components and raw materials, or by an aspect of a treatment used in combination with our products, such as a complementary drug or anesthesia, may be the basis for a claim against us by patients, hospitals, physicians or others purchasing or using our products, even if our products were not the actual cause of such injury or death. We may choose to settle any claims to avoid fault and complication not due to failure of our products. An adverse outcome involving one of our products could result in reduced market acceptance and demand for all of our products, and could harm our reputation and our ability to market our products in the future. In some circumstances, adverse events arising from or associated with the design, manufacture or marketing of our products could result in the suspension or delay of regulatory reviews of our premarket notifications or applications for marketing. Any of the foregoing problems could disrupt our business and have a material adverse effect on our business, financial condition and results of operations.

Although we carry product liability insurance in the United States and in other countries in which we conduct business, including for clinical trials and product marketing, we can give no assurance that such coverage will be available or adequate to satisfy any claims. Product liability insurance is expensive, subject to significant deductibles and exclusions, and may not be available on acceptable terms, if at all. If we are unable to obtain or maintain insurance at an acceptable cost or on acceptable terms with adequate coverage or otherwise protect against potential product liability claims, we could be exposed to significant liabilities. A product liability claim, recall or other claim with respect to uninsured liabilities or for amounts in excess of insured liabilities could have a material adverse effect on our business, financial condition and results of operations. Defending a suit, regardless of its merit or eventual outcome, could be costly, could divert management’s attention from our business and might result in adverse publicity, which could result in reduced acceptance of our products in the market, product recalls or market withdrawals.

We are required to file adverse event reports under Medical Device Reporting, or MDR, regulations with the FDA that are publicly available on the FDA's website. We are required to file MDRs if our products may have caused or contributed to a serious injury or death or malfunctioned in a way that could likely cause or contribute to a serious injury or death if it were to recur. Any such MDR that reports a significant adverse event could result in negative publicity, which could harm our reputation and future sales.

Our ability to compete depends on our ability to innovate successfully and deliver any new products in a timely manner.

The market for our products is competitive, dynamic, and marked by rapid and substantial technological development and product innovation. New entrants or existing competitors could attempt to develop products that compete directly with ours. Demand for our products and future related products could be diminished by equivalent or superior products and technologies offered by competitors. If we are unable to innovate successfully, our products could become obsolete and our revenue would decline as our customers purchase our competitors' products.

We are currently focused on development of existing products, but may devote additional resources to research in the future. If we are unable to develop new products, applications or features due to constraints, such as insufficient cash resources, high employee turnover, inability to hire personnel with sufficient technical skills or a lack of other research and development resources, we may not be able to maintain our competitive position compared to other companies. Furthermore, many of our competitors devote a considerably greater amount of funds to their research and development programs than we do, and those that do not may be acquired by larger companies that would allocate greater resources to research and development programs. Our failure or inability to devote adequate research and development resources or compete effectively with the research and development programs of our competitors could harm our business.

Any significant delays in our product launches may significantly impede our ability to enter or compete in a given market and may reduce the sales that we are able to generate from these products. We may experience delays in any phase of a product development, including during research and development, clinical trials, regulatory review, manufacturing and marketing. Delays in product introductions could have a material adverse effect on our business, financial condition and results of operations.

The failure of TCAR to meet patient expectations or the occurrence of adverse events from TCAR could impair our financial performance.

Our future success depends upon patients having an experience with TCAR that meets their expectations in order to increase physician demand for our products as a result of positive feedback, social media and word-of-mouth. Patients may be dissatisfied if their expectations of the procedure and results, among other things, are not met. Despite what we believe to be the safety profile of our products, patients may experience adverse events such as arterial restenosis or dissection, cranial nerve injury, wound complications, transient ischemic attacks, stroke, heart attack, and death. If the results of TCAR do not meet the expectations of the patients, or the patient experiences adverse events, it could discourage the patient from referring TCAR to others. Dissatisfied patients may express negative opinions through social media. Any failure to meet patient expectations and any resulting negative publicity could harm our reputation and future sales.

We depend on our senior management team and the loss of one or more key employees or an inability to attract and retain highly skilled employees could harm our business.

Our success depends largely on the continued services of key members of our executive management team and others in key management positions. For example, the services of Erica Rogers, our Chief Executive Officer, and Lucas Buchanan, our Chief Financial Officer, are essential to driving

adoption of our products, executing on our corporate strategy and ensuring the continued operations and integrity of financial reporting within our company. In addition, the services of Andrew Davis, our Executive Vice President of Global Sales and Marketing, are critical to driving the growth in sales of our products. Any of our employees may terminate their employment with us at any time. We do not currently maintain key person life insurance policies on any of our employees. If we lose one or more key employees, we may experience difficulties in competing effectively, developing our technologies and implementing our business strategy.

In addition, our research and development programs, clinical operations and sales efforts depend on our ability to attract and retain highly skilled engineers and sales professionals. We may not be able to attract or retain qualified engineers and sales professionals in the future due to the competition for qualified personnel. We have from time to time experienced, and we expect to continue to experience, difficulty in hiring and retaining employees with appropriate qualifications. Many of the companies with which we compete for experienced personnel have greater resources than we do. If we hire employees from competitors or other companies, their former employers may attempt to assert that these employees or we have breached legal obligations, resulting in a diversion of our time and resources and, potentially, damages. In addition, job candidates and existing employees, particularly in the San Francisco Bay Area, often consider the value of the stock awards they receive in connection with their employment. If the perceived benefits of our stock awards decline, either because we are a public company or for other reasons, it may harm our ability to recruit and retain highly skilled employees. If we fail to attract new personnel or fail to retain and motivate our current personnel, our business and future growth prospects would be harmed.

The use, misuse or off-label use of our products may result in injuries that lead to product liability suits, which could be costly to our business.

Our products have been approved by the FDA for the treatment of high surgical risk patients who require carotid revascularization and meet certain treatment parameters. If physicians expand the patient population in which they elect to use our products that is outside of the intended use approved by the FDA, then the use, misuse, or off-label use of our products may result in outcomes and adverse events including stroke and death, potentially leading to product liability claims. Our products are not indicated for use in all patients with carotid artery disease, and therefore cannot be marketed or advertised in the United States for certain uses without additional clearances from the FDA. However, we cannot prevent a physician from using our products for off-label applications or using components or products that are not our products when performing TCAR. In addition, we cannot guarantee that physicians are trained by us or their peers prior to utilizing our products. Complications resulting from the use of our products off-label or use by physicians who have not been trained appropriately, or at all, may expose us to product liability claims and harm our reputation. Moreover, if the FDA determines that our promotional materials or physician training, including our paid consultants' educational materials, constitutes promotion of an off-label use, it could request that we modify our training or promotional materials or subject us to enforcement action, including warning letters, untitled letters, fines, penalties, or seizures. If we are found to have promoted such off-label uses, we may become subject to significant liability. The federal government has levied large civil and criminal fines and/or other penalties against companies for alleged improper promotion and has investigated, prosecuted, and/or enjoined several companies from engaging in off-label promotion.

In addition, if our products are defectively designed, manufactured or labeled, contains defective components or are misused, we may become subject to costly litigation initiated by physicians, hospitals or patients. Product liability claims are especially prevalent in the medical device industry and could harm our reputation, divert management's attention from our core business, be expensive to defend and may result in sizable damage awards against us. Although we maintain product liability insurance, we may not have sufficient insurance coverage for future product liability claims. We may not be able to obtain insurance in amounts or scope sufficient to provide us with adequate coverage against all potential liabilities. Any product liability claims brought against us, with or without merit, could increase our product

liability insurance rates or prevent us from securing continuing coverage, harm our reputation, significantly increase our expenses, and reduce product sales. Product liability claims could cause us to incur significant legal fees and deductibles and claims in excess of our insurance coverage would be paid out of cash reserves, harming our financial condition and operating results.

We may need substantial additional funding beyond the proceeds of this offering and may not be able to raise capital when needed, which could force us to delay, reduce or eliminate our product development programs and commercialization efforts.

We believe that our cash and cash equivalents as of December 31, 2018, together with the expected revenue and additional borrowings available under our term loan agreement, will be sufficient to meet our capital requirements and fund our operations for at least the next 12 months following this offering. However, we have based these estimates on assumptions that may prove to be incorrect, and we could spend our available financial resources much faster than we currently expect. Our future funding requirements will depend on many factors, including:

- the degree and rate of market acceptance of TCAR and our products;
- whether we acquire third-party companies, products or technologies;
- repayment of debt;
- the scope and timing of investment in our sales force;
- the scope, rate of progress and cost of our current or future clinical studies;
- the cost of our research and development activities;
- the cost and timing of additional regulatory clearances or approvals;
- the costs associated with any product recall that may occur;
- the costs of attaining, defending and enforcing our intellectual property rights;
- the emergence of competing technologies or other adverse market developments; and
- the rate at which we expand internationally.

We may seek to raise additional capital through equity offerings or debt financings and such additional financing may not be available to us on acceptable terms, or at all. In addition, any additional equity or debt financing that we raise may contain terms that are not favorable to us or our stockholders. For example, if we raise funds by issuing equity or equity-linked securities, the issuance of such securities will result in dilution to our stockholders. Any equity securities issued also may provide for rights, preferences or privileges senior to those of holders of our common stock. In addition, the issuance of additional equity securities by us, or the possibility of such issuance, may cause the market price of our common stock to decline, and the price per share at which we sell additional shares of our common stock, or securities convertible into or exercisable or exchangeable for shares of our common stock, in future transactions may be higher or lower than the price per share paid by investors in this offering.

In addition, the terms of debt securities issued or borrowings could impose significant restrictions on our operations including restrictive covenants, such as limitations on our ability to incur additional debt or issue additional equity, limitations on our ability to pay dividends, limitations on our ability to acquire or license intellectual property rights, and other operating restrictions that could adversely affect our ability to conduct our business. In the event that we enter into collaborations or licensing arrangements to raise capital, we may be required to accept unfavorable terms, such as relinquishment or licensing of certain technologies or products that we otherwise would seek to develop or commercialize ourselves, or reserve for future potential arrangements when we might otherwise be able to achieve more favorable terms. In

addition, we may be forced to work with a partner on one or more of our products or market development programs, which could lower the economic value of those programs to us.

If we are unable to obtain adequate financing on terms satisfactory to us when we require it, we may terminate or delay the development of one or more of our products, delay clinical trials necessary to market our products, or delay establishment of sales and marketing capabilities or other activities necessary to commercialize our products. If this were to occur, our ability to grow and support our business and to respond to market challenges could be significantly limited, which could have a material adverse effect on our business, financial condition and results of operations.

We have a significant amount of debt, which may affect our ability to operate our business and secure additional financing in the future.

As of December 31, 2018, we had an aggregate of approximately $ million in principal and interest outstanding under our term loan agreement. We must make significant quarterly payments under the loan agreement, which has diverted and will continue to divert resources from other activities. Our obligations under the term loan agreement are collateralized by substantially all of our assets, including our material intellectual property, and we are subject to customary financial and operating covenants limiting our ability to, among other things, relocate or dispose of assets, undergo a change in control, merge or consolidate, enter into certain transactions with affiliates, make acquisitions, incur debt, pay dividends, grant liens, repurchase stock and make investments, in each case subject to certain exceptions. The covenants related to the term loan agreement, as well as any future financing agreements into which we may enter, may restrict our ability to finance our operations and engage in, expand or otherwise pursue our business activities and strategies. While we have not previously breached and are not currently in breach of these or any other covenants contained in our term loan agreement, there can be no guarantee that we will not breach these covenants in the future. Our ability to comply with these covenants may be affected by events beyond our control, and future breaches of any of these covenants could result in a default under the loan agreement. If not waived, future defaults could cause all of the outstanding indebtedness under the term loan agreement to become immediately due and payable and terminate commitments to extend further credit. If we do not have or are unable to generate sufficient cash available to repay our debt obligations when they become due and payable, either upon maturity or in the event of a default, we may not be able to obtain additional debt or equity financing on favorable terms, if at all, which may negatively impact our ability to operate and continue our business as a going concern.

We may acquire other companies or technologies, which could fail to result in a commercial product or net sales, divert our management's attention, result in additional dilution to our stockholders and otherwise disrupt our operations and harm our operating results.

Although we currently have no agreements or commitments to complete any such transactions and are not involved in negotiations to do so, we may in the future seek to acquire or invest in businesses, applications or technologies that we believe could complement or expand our portfolio, enhance our technical capabilities or otherwise offer growth opportunities. However, we cannot assure you that we would be able to successfully complete any acquisition we choose to pursue, or that we would be able to successfully integrate any acquired business, product or technology in a cost-effective and non-disruptive manner. The pursuit of potential acquisitions may divert the attention of management and cause us to incur various costs and expenses in identifying, investigating and pursuing suitable acquisitions, whether or not they are consummated. We may not be able to identify desirable acquisition targets or be successful in entering into an agreement with any particular target or obtain the expected benefits of any acquisition or investment.

To date, the growth of our operations has been largely organic, and we have limited experience in acquiring other businesses or technologies. We may not be able to successfully integrate any acquired personnel, operations and technologies, or effectively manage the combined business following an

acquisition. Acquisitions could also result in dilutive issuances of equity securities, the use of our available cash, or the incurrence of debt, which could harm our operating results. In addition, if an acquired business fails to meet our expectations, our operating results, business and financial condition may suffer.

Taxing authorities may successfully assert that we should have collected or in the future should collect sales and use, gross receipts, value added or similar taxes and may successfully impose additional obligations on us, and any such assessments or obligations could adversely affect our business, financial condition and results of operations.

We have not historically collected sales and use, gross receipts, value added or similar taxes, although we may be subject to such taxes in various jurisdictions. One or more jurisdictions may seek to impose additional tax collection obligations on us, including for past sales. A successful assertion by a state, country, or other jurisdiction that we should have been or should be collecting additional sales, use, or other taxes on our services could, among other things, result in substantial tax liabilities for past sales, create significant administrative burdens for us, discourage users from purchasing our products, or otherwise harm our business, results of operations and financial condition.

Our ability to utilize our net operating loss carryforwards may be limited.

As of December 31, 2017, we had U.S. federal and state net operating loss carryforwards, or NOLs, of $103 million and $97 million, respectively, which if not utilized will begin to expire in 2027 for U.S. federal purposes and 2028 for state purposes. We may use these NOLs to offset against taxable income for U.S. federal and state income tax purposes. However, Section 382 of the Internal Revenue Code of 1986, as amended, may limit the NOLs we may use in any year for U.S. federal income tax purposes in the event of certain changes in ownership of our company. A Section 382 “ownership change” generally occurs if one or more stockholders or groups of stockholders who own at least 5% of a company’s stock increase their ownership by more than 50 percentage points over their lowest ownership percentage within a rolling three-year period. Similar rules may apply under state tax laws. We have not conducted a 382 study to determine whether the use of our NOLs is impaired. We may have previously undergone an “ownership change.” In addition, this offering or future issuances or sales of our stock, including certain transactions involving our stock that are outside of our control, could result in future “ownership changes.” “Ownership changes” that have occurred in the past or that may occur in the future, including in connection with this offering, could result in the imposition of an annual limit on the amount of pre-ownership change NOLs and other tax attributes we can use to reduce our taxable income, potentially increasing and accelerating our liability for income taxes, and also potentially causing those tax attributes to expire unused. Any limitation on using NOLs could, depending on the extent of such limitation and the NOLs previously used, result in our retaining less cash after payment of U.S. federal and state income taxes during any year in which we have taxable income, rather than losses, than we would be entitled to retain if such NOLs were available as an offset against such income for U.S. federal and state income tax reporting purposes, which could adversely impact our operating results.

As international expansion of our business occurs, it will expose us to market, regulatory, political, operational, financial and economic risks associated with doing business outside of the United States.

Our long-term strategy is to increase our international presence, including securing regulatory approvals in Japan and China. We have the right to affix the CE Mark to our products, allowing us to commercialize in Europe in the future. This strategy may include establishing and maintaining physician outreach and education capabilities outside of the United States and expanding our relationships with international payers. Doing business internationally involves a number of risks, including:

- difficulties in staffing and managing our international operations;

- multiple, conflicting and changing laws and regulations such as tax laws, privacy laws, export and import restrictions, employment laws, regulatory requirements and other governmental approvals, permits and licenses;
- reduced or varied protection for intellectual property rights in some countries;
- obtaining regulatory clearance where required for TCAR in various countries;
- requirements to maintain data and the processing of that data on servers located within such countries;
- complexities associated with managing multiple payer reimbursement regimes, government payers or patient self-pay systems;
- limits on our ability to penetrate international markets if we are required to manufacture our products locally;
- financial risks, such as longer payment cycles, difficulty collecting accounts receivable, foreign tax laws and complexities of foreign value-added tax systems, the effect of local and regional financial pressures on demand and payment for our products and exposure to foreign currency exchange rate fluctuations;
- restrictions on the site-of-service for use of our products and the economics related thereto for physicians, providers and payers;
- natural disasters, political and economic instability, including wars, terrorism, political unrest, outbreak of disease, boycotts, curtailment of trade and other market restrictions; and
- regulatory and compliance risks that relate to maintaining accurate information and control over activities subject to regulation under the United States Foreign Corrupt Practices Act of 1977, or FCPA, U.K. Bribery Act of 2010 and comparable laws and regulations in other countries.

Any of these factors could significantly harm our future international expansion and operations and, consequently, have a material adverse effect on our business, financial condition and results of operations.

Security breaches, loss of data and other disruptions could compromise sensitive information related to our business or our customer's patients, or prevent us from accessing critical information and expose us to liability, which could adversely affect our business and our reputation.

In the ordinary course of our business, we may become exposed to, or collect and store sensitive data, including procedure-based information and legally-protected health information, credit card, and other financial information, insurance information, and other potentially personally identifiable information. We also store sensitive intellectual property and other proprietary business information. Although we take measures to protect sensitive information from unauthorized access or disclosure, our information technology, or IT, and infrastructure, and that of our third-party billing and collections provider and other technology partners, may be vulnerable to cyber attacks by hackers or viruses or breached due to employee error, malfeasance or other disruptions. We rely extensively on IT systems, networks and services, including internet sites, data hosting and processing facilities and tools, physical security systems and other hardware, software and technical applications and platforms, some of which are managed, hosted, provided and/or used by third-parties or their vendors, to assist in conducting our business. A significant breakdown, invasion, corruption, destruction or interruption of critical information technology systems or infrastructure, by our workforce, others with authorized access to our systems or unauthorized persons could negatively impact operations. The ever-increasing use and evolution of

technology, including cloud-based computing, creates opportunities for the unintentional dissemination or intentional destruction of confidential information stored in our or our third-party providers' systems, portable media or storage devices. We could also experience a business interruption, theft of confidential information or reputational damage from industrial espionage attacks, malware or other cyber-attacks, which may compromise our system infrastructure or lead to data leakage, either internally or at our third-party providers. Although the aggregate impact on our operations and financial condition has not been material to date, we have been the target of events of this nature and expect them to continue as cybersecurity threats have been rapidly evolving in sophistication and becoming more prevalent in the industry. We are investing in protections and monitoring practices of our data and IT to reduce these risks and continue to monitor our systems on an ongoing basis for any current or potential threats. There can be no assurance, however, that our efforts will prevent breakdowns or breaches to our or our third-party providers' databases or systems that could adversely affect our business.

We could be adversely affected by violations of the FCPA and similar worldwide anti-bribery laws and any investigation, and the outcome of any investigation, by government agencies of possible violations by us of the FCPA could have a material adverse effect on our business.

The FCPA and similar worldwide anti-bribery laws prohibit companies and their intermediaries from corruptly providing any benefits to government officials for the purpose of obtaining or retaining business. We are in the process of further enhancing policies and procedures intended to help ensure compliance with these laws. In the future, we may operate in parts of the world that have experienced governmental corruption to some degree. We cannot assure you that our internal control policies and procedures will protect us from improper acts committed by our employees or agents. Violations of these laws, or allegations of such violations, would significantly disrupt our business and have a material adverse effect on our business, financial condition and results of operations.

Risks Related to Our Intellectual Property

We may become a party to intellectual property litigation or administrative proceedings that could be costly and could interfere with our ability to sell and market our products.

The medical device industry has been characterized by extensive litigation regarding patents, trademarks, trade secrets, and other intellectual property rights, and companies in the industry have used intellectual property litigation to gain a competitive advantage. It is possible that U.S. and foreign patents and pending patent applications or trademarks controlled by third parties may be alleged to cover our products, or that we may be accused of misappropriating third parties' trade secrets. Additionally, our products include components that we purchase from vendors, and may include design components that are outside of our direct control. Our competitors, many of which have substantially greater resources and have made substantial investments in patent portfolios, trade secrets, trademarks, and competing technologies, may have applied for or obtained, or may in the future apply for or obtain, patents or trademarks that will prevent, limit or otherwise interfere with our ability to make, use, sell and/or export our products or to use product names. Moreover, in recent years, individuals and groups that are non-practicing entities, commonly referred to as "patent trolls," have purchased patents and other intellectual property assets for the purpose of making claims of infringement in order to extract settlements. From time to time, we may receive threatening letters, notices or "invitations to license," or may be the subject of claims that our products and business operations infringe or violate the intellectual property rights of others. The defense of these matters can be time consuming, costly to defend in litigation, divert management's attention and resources, damage our reputation and brand and cause us to incur significant expenses or make substantial payments. Vendors from whom we purchase hardware or software may not indemnify us in the event that such hardware or software is accused of infringing a third-party's patent or trademark or of misappropriating a third-party's trade secret.

Since patent applications are confidential for a period of time after filing, we cannot be certain that we were the first to file any patent application related to our products. Competitors may also contest our patents, if issued, by showing the patent examiner that the invention was not original, was not novel or

was obvious. In litigation, a competitor could claim that our patents, if issued, are not valid for a number of reasons. If a court agrees, we would lose our rights to those challenged patents.

In addition, we may in the future be subject to claims by our former employees or consultants asserting an ownership right in our patents or patent applications, as a result of the work they performed on our behalf. Although we generally require all of our employees and consultants and any other partners or collaborators who have access to our proprietary know-how, information or technology to assign or grant similar rights to their inventions to us, we cannot be certain that we have executed such agreements with all parties who may have contributed to our intellectual property, nor can we be certain that our agreements with such parties will be upheld in the face of a potential challenge, or that they will not be breached, for which we may not have an adequate remedy.

Further, if such patents, trademarks, or trade secrets are successfully asserted against us, this may harm our business and result in injunctions preventing us from selling our products, license fees, damages and the payment of attorney fees and court costs. In addition, if we are found to willfully infringe third-party patents or trademarks or to have misappropriated trade secrets, we could be required to pay treble damages in addition to other penalties. Although patent, trademark, trade secret, and other intellectual property disputes in the medical device area have often been settled through licensing or similar arrangements, costs associated with such arrangements may be substantial and could include ongoing royalties. We may be unable to obtain necessary licenses on satisfactory terms, if at all. If we do not obtain necessary licenses, we may not be able to redesign our products to avoid infringement.

Similarly, interference or derivation proceedings provoked by third parties or brought by the U.S. Patent and Trademark Office, or USPTO, may be necessary to determine priority with respect to our patents, patent applications, trademarks or trademark applications. We may also become involved in other proceedings, such as reexamination, inter parties review, derivation or opposition proceedings before the USPTO or other jurisdictional body relating to our intellectual property rights or the intellectual property rights of others. Adverse determinations in a judicial or administrative proceeding or failure to obtain necessary licenses could prevent us from manufacturing our products or using product names, which would have a significant adverse impact on our business, financial condition and results of operations.

Additionally, we may file lawsuits or initiate other proceedings to protect or enforce our patents or other intellectual property rights, which could be expensive, time consuming and unsuccessful. Competitors may infringe our issued patents or other intellectual property. To counter infringement or unauthorized use, we may be required to file infringement claims, which can be expensive and time-consuming. Any claims we assert against perceived infringers could provoke these parties to assert counterclaims against us alleging that we infringe their intellectual property. In addition, in a patent infringement proceeding, a court may decide that a patent of ours is invalid or unenforceable, in whole or in part, construe the patent's claims narrowly or refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover the technology in question. Furthermore, even if our patents are found to be valid and infringed, a court may refuse to grant injunctive relief against the infringer and instead grant us monetary damages and/or ongoing royalties. Such monetary compensation may be insufficient to adequately offset the damage to our business caused by the infringer's competition in the market. An adverse result in any litigation proceeding could put one or more of our patents at risk of being invalidated or interpreted narrowly, which could adversely affect our competitive business position, financial condition and results of operations.

Our success will depend on our ability to obtain, maintain and protect our intellectual property rights.

In order to remain competitive, we must develop, maintain and protect the proprietary aspects of our brands, technologies and data. We rely on a combination of contractual provisions, confidentiality procedures and patent, copyright, trademark, trade secret and other intellectual property laws to protect

the proprietary aspects of our brands, technologies and data. These legal measures afford only limited protection, and competitors or others may gain access to or use our intellectual property and proprietary information. Our success will depend, in part, on preserving our trade secrets, maintaining the security of our data and know-how and obtaining and maintaining other intellectual property rights. We may not be able to obtain or maintain intellectual property or other proprietary rights necessary to our business or in a form that provides us with a competitive advantage. In addition, our trade secrets, data and know-how could be subject to unauthorized use, misappropriation, or disclosure to unauthorized parties, despite our efforts to enter into confidentiality agreements with our employees, consultants, clients and other vendors who have access to such information, and could otherwise become known or be independently discovered by third parties. Our intellectual property, including trademarks, could be challenged, invalidated, infringed, and circumvented by third parties, and our trademarks could also be diluted, declared generic or found to be infringing on other marks. If any of the foregoing occurs, we could be forced to re-brand our products, resulting in loss of brand recognition and requiring us to devote resources to advertising and marketing new brands, and suffer other competitive harm. Third parties may also adopt trademarks similar to ours, which could harm our brand identity and lead to market confusion. Failure to obtain and maintain intellectual property rights necessary to our business and failure to protect, monitor and control the use of our intellectual property rights could negatively impact our ability to compete and cause us to incur significant expenses. The intellectual property laws and other statutory and contractual arrangements in the United States and other jurisdictions we depend upon may not provide sufficient protection in the future to prevent the infringement, use, violation or misappropriation of our trademarks, data, technology and other intellectual property and services, and may not provide an adequate remedy if our intellectual property rights are infringed, misappropriated or otherwise violated.

We rely, in part, on our ability to obtain, maintain, expand, enforce, and defend the scope of our intellectual property portfolio or other proprietary rights, including the amount and timing of any payments we may be required to make in connection with the licensing, filing, defense and enforcement of any patents or other intellectual property rights. The process of applying for and obtaining a patent is expensive, time consuming and complex, and we may not be able to file, prosecute, maintain, enforce or license all necessary or desirable patent applications at a reasonable cost, in a timely manner, or in all jurisdictions where protection may be commercially advantageous, or we may not be able to protect our proprietary rights at all. Despite our efforts to protect our proprietary rights, unauthorized parties may be able to obtain and use information that we regard as proprietary. In addition, the issuance of a patent does not ensure that it is valid or enforceable, so even if we obtain patents, they may not be valid or enforceable against third parties. Our patent applications may not result in issued patents and our patents may not be sufficiently broad to protect our technology. Moreover, even if we are able to obtain patent protection, such patent protection may be of insufficient scope to achieve our business objectives. Issued patents may be challenged, narrowed, invalidated or circumvented. Decisions by courts and governmental patent agencies may introduce uncertainty in the enforceability or scope of patents owned by or licensed to us. Furthermore, the issuance of a patent does not give us the right to practice the patented invention. Third parties may have blocking patents that could prevent us from marketing our own products and practicing our own technology. Alternatively, third parties may seek approval to market their own products similar to or otherwise competitive with our products. In these circumstances, we may need to defend and/or assert our patents, including by filing lawsuits alleging patent infringement. In any of these types of proceedings, a court or agency with jurisdiction may find our patents invalid, unenforceable or not infringed; competitors may then be able to market products and use manufacturing and analytical processes that are substantially similar to ours. Even if we have valid and enforceable patents, these patents still may not provide protection against competing products or processes sufficient to achieve our business objectives.

If we are unable to protect the confidentiality of our other proprietary information, our business and competitive position may be harmed.

In addition to patent protection, we also rely on other proprietary rights, including protection of trade secrets, and other proprietary information that is not patentable or that we elect not to patent. However,

trade secrets can be difficult to protect and some courts are less willing or unwilling to protect trade secrets. To maintain the confidentiality of our trade secrets and proprietary information, we rely heavily on confidentiality provisions that we have in contracts with our employees, consultants, collaborators and others upon the commencement of their relationship with us. We cannot guarantee that we have entered into such agreements with each party that may have or have had access to our trade secrets or proprietary technology and processes. We may not be able to prevent the unauthorized disclosure or use of our technical knowledge or other trade secrets by such third parties, despite the existence generally of these confidentiality restrictions. These contracts may not provide meaningful protection for our trade secrets, know-how, or other proprietary information in the event of any unauthorized use, misappropriation, or disclosure of such trade secrets, know-how, or other proprietary information. There can be no assurance that such third parties will not breach their agreements with us, that we will have adequate remedies for any breach, or that our trade secrets will not otherwise become known or independently developed by competitors. Despite the protections we do place on our intellectual property or other proprietary rights, monitoring unauthorized use and disclosure of our intellectual property is difficult, and we do not know whether the steps we have taken to protect our intellectual property or other proprietary rights will be adequate. In addition, the laws of many foreign countries will not protect our intellectual property or other proprietary rights to the same extent as the laws of the United States. Consequently, we may be unable to prevent our proprietary technology from being exploited abroad, which could affect our ability to expand to international markets or require costly efforts to protect our technology.

To the extent our intellectual property or other proprietary information protection is incomplete, we are exposed to a greater risk of direct competition. A third party could, without authorization, copy or otherwise obtain and use our products or technology, or develop similar technology. Our competitors could purchase our products and attempt to replicate some or all of the competitive advantages we derive from our development efforts or design around our protected technology. Our failure to secure, protect and enforce our intellectual property rights could substantially harm the value of our products, brand and business. The theft or unauthorized use or publication of our trade secrets and other confidential business information could reduce the differentiation of our products and harm our business, the value of our investment in development or business acquisitions could be reduced and third parties might make claims against us related to losses of their confidential or proprietary information. Any of the foregoing could materially and adversely affect our business, financial condition and results of operations.

Further, it is possible that others will independently develop the same or similar technology or otherwise obtain access to our unpatented technology, and in such cases we could not assert any trade secret rights against such parties. Costly and time consuming litigation could be necessary to enforce and determine the scope of our trade secret rights and related confidentiality and nondisclosure provisions. If we fail to obtain or maintain trade secret protection, or if our competitors obtain our trade secrets or independently develop technology similar to ours or competing technologies, our competitive market position could be materially and adversely affected. In addition, some courts are less willing or unwilling to protect trade secrets and agreement terms that address non-competition are difficult to enforce in many jurisdictions and might not be enforceable in certain cases.

We also seek to preserve the integrity and confidentiality of our data and other confidential information by maintaining physical security of our premises and physical and electronic security of our information technology systems. While we have confidence in these individuals, organizations and systems, agreements or security measures may be breached and detecting the disclosure or misappropriation of confidential information and enforcing a claim that a party illegally disclosed or misappropriated confidential information is difficult, expensive and time-consuming, and the outcome is unpredictable. Further, we may not be able to obtain adequate remedies for any breach.

Obtaining and maintaining patent protection depends on compliance with various procedural, document submission, fee payment and other requirements imposed by governmental patent

agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.

The USPTO and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process. In addition, periodic maintenance fees on issued patents often must be paid to the USPTO and foreign patent agencies over the lifetime of the patent. While an unintentional lapse can in many cases be cured by payment of a late fee or by other means in accordance with the applicable rules, there are situations in which noncompliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. Non-compliance events that could result in abandonment or lapse of a patent or patent application include, but are not limited to, failure to respond to official actions within prescribed time limits, non-payment of fees and failure to properly legalize and submit formal documents. If we fail to maintain the patents and patent applications covering our products, we may not be able to stop a competitor from marketing products that are the same as or similar to our products, which would have a material adverse effect on our business.

We may not be able to protect our intellectual property rights throughout the world.

A company may attempt to commercialize competing products utilizing our proprietary design, trademarks or tradenames in foreign countries where we do not have any patents or patent applications and where legal recourse may be limited. This may have a significant commercial impact on our foreign business operations.

Filing, prosecuting and defending patents or trademarks on our current and future products in all countries throughout the world would be prohibitively expensive. The requirements for patentability and trademarking may differ in certain countries, particularly developing countries. The laws of some foreign countries do not protect intellectual property rights to the same extent as laws in the United States. Consequently, we may not be able to prevent third parties from utilizing our inventions and trademarks in all countries outside the United States. Competitors may use our technologies or trademarks in jurisdictions where we have not obtained patent or trademark protection to develop or market their own products and further, may export otherwise infringing products to territories where we have patent and trademark protection, but enforcement on infringing activities is inadequate. These products or trademarks may compete with our products or trademarks, and our patents, trademarks or other intellectual property rights may not be effective or sufficient to prevent them from competing.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents, trademarks and other intellectual property protection, which could make it difficult for us to stop the infringement of our patents and trademarks or marketing of competing products in violation of our proprietary rights generally. Proceedings to enforce our patent and trademarks rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business, could put our patents and trademarks at risk of being invalidated or interpreted narrowly and our patent or trademark applications at risk, and could provoke third parties to assert claims against us. We may not prevail in any lawsuits that we initiate and the damages or other remedies awarded, if any, may not be commercially meaningful. In addition, certain countries in Europe and certain developing countries, including India and China, have compulsory licensing laws under which a patent owner may be compelled to grant licenses to third parties. In those countries, we may have limited remedies if our patents are infringed or if we are compelled to grant a license to our patents to a third party, which could materially diminish the value of those patents. This could limit our potential revenue opportunities. Accordingly, our efforts to enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we own or license. Finally, our ability to protect and enforce our intellectual property rights may be adversely affected by unforeseen changes in foreign intellectual property laws.

We may be subject to claims that we or our employees have misappropriated the intellectual property of a third party, including trade secrets or know-how, or are in breach of non-competition or non-solicitation agreements with our competitors and third parties may claim an ownership interest in intellectual property we regard as our own.

Many of our employees and consultants were previously employed at or engaged by other medical device, biotechnology or pharmaceutical companies, including our competitors or potential competitors. Some of these employees, consultants and contractors, may have executed proprietary rights, non-disclosure and non-competition agreements in connection with such previous employment. Although we try to ensure that our employees and consultants do not use the intellectual property, proprietary information, know-how or trade secrets of others in their work for us, we may be subject to claims that we or these individuals have, inadvertently or otherwise, misappropriated the intellectual property or disclosed the alleged trade secrets or other proprietary information, of these former employers or competitors.

Additionally, we may be subject to claims from third parties challenging our ownership interest in intellectual property we regard as our own, based on claims that our employees or consultants have breached an obligation to assign inventions to another employer, to a former employer, or to another person or entity. Litigation may be necessary to defend against any other claims, and it may be necessary or we may desire to enter into a license to settle any such claim; however, there can be no assurance that we would be able to obtain a license on commercially reasonable terms, if at all. If our defense to those claims fails, in addition to paying monetary damages, a court could prohibit us from using technologies or features that are essential to our products, if such technologies or features are found to incorporate or be derived from the trade secrets or other proprietary information of the former employers.

An inability to incorporate technologies or features that are important or essential to our products could have a material adverse effect on our business, financial condition and results of operations, and may prevent us from selling our products. In addition, we may lose valuable intellectual property rights or personnel. Even if we are successful in defending against these claims, litigation could result in substantial costs and could be a distraction to management. Any litigation or the threat thereof may adversely affect our ability to hire employees or contract with independent sales representatives. A loss of key personnel or their work product could hamper or prevent our ability to commercialize our products, which could have an adverse effect on our business, financial condition and results of operations.

Changes in patent law could diminish the value of patents in general, thereby impairing our ability to protect our existing and future products.

Recent patent reform legislation could increase the uncertainties and costs surrounding the prosecution of patent applications and the enforcement or defense of issued patents. In 2011, the Leahy-Smith America Invents Act, or the Leahy-Smith Act, was signed into law. The Leahy-Smith Act includes a number of significant changes to U.S. patent law. These include provisions that affect the way patent applications are prosecuted and also may affect patent litigation. These also include provisions that switched the United States from a “first-to-invent” system to a “first-to-file” system, allow third-party submission of prior art to the USPTO during patent prosecution and set forth additional procedures to attack the validity of a patent by the USPTO administered post grant proceedings. Under a first-to-file system, assuming the other requirements for patentability are met, the first inventor to file a patent application generally will be entitled to the patent on an invention regardless of whether another inventor had made the invention earlier. The USPTO recently developed new regulations and procedures to govern administration of the Leahy-Smith Act, and many of the substantive changes to patent law associated with the Leahy-Smith Act, and in particular, the first to file provisions, only became effective in 2013. Accordingly, it is not clear what, if any, impact the Leahy-Smith Act will have on the operation of our business. The Leahy-Smith Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued

patents, all of which could have a material adverse effect on our business, financial condition and results of operations.

In addition, patent reform legislation may pass in the future that could lead to additional uncertainties and increased costs surrounding the prosecution, enforcement and defense of our patents and applications. Furthermore, the U.S. Supreme Court and the U.S. Court of Appeals for the Federal Circuit have made, and will likely continue to make, changes in how the patent laws of the United States are interpreted. Similarly, foreign courts have made, and will likely continue to make, changes in how the patent laws in their respective jurisdictions are interpreted. We cannot predict future changes in the interpretation of patent laws or changes to patent laws that might be enacted into law by U.S. and foreign legislative bodies. Those changes may materially affect our patents or patent applications and our ability to obtain additional patent protection in the future.

The failure of third parties to meet their contractual, regulatory, and other obligations could adversely affect our business.

We rely on suppliers, vendors, outsourcing partners, consultants, alliance partners and other third parties to research, develop, manufacture and commercialize our products and manage certain parts of our business. Using these third parties poses a number of risks, such as: (i) they may not perform to our standards or legal requirements; (ii) they may not produce reliable results; (iii) they may not perform in a timely manner; (iv) they may not maintain confidentiality of our proprietary information; (v) disputes may arise with respect to ownership of rights to technology developed with our partners; and (vi) disagreements could cause delays in, or termination of, the research, development or commercialization of our products or result in litigation or arbitration. Moreover, some third parties are located in markets subject to political and social risk, corruption, infrastructure problems and natural disasters, in addition to country-specific privacy and data security risk given current legal and regulatory environments. Failure of third parties to meet their contractual, regulatory, and other obligations may materially affect our business.

If our trademarks and tradenames are not adequately protected, then we may not be able to build name recognition in our markets and our business may be adversely affected.

We rely on trademarks, service marks, tradenames and brand names to distinguish our products from the products of our competitors, and have registered or applied to register these trademarks. We cannot assure you that our trademark applications will be approved. During trademark registration proceedings, we may receive rejections. Although we are given an opportunity to respond to those rejections, we may be unable to overcome such rejections. In addition, in proceedings before the USPTO and comparable agencies in many foreign jurisdictions, third parties are given an opportunity to oppose pending trademark applications and to seek to cancel registered trademarks. Opposition or cancellation proceedings may be filed against our trademarks, and our trademarks may not survive such proceedings. In the event that our trademarks are successfully challenged, we could be forced to rebrand our products, which could result in loss of brand recognition and could require us to devote resources towards advertising and marketing new brands. At times, competitors may adopt trade names or trademarks similar to ours, thereby impeding our ability to build brand identity and possibly leading to market confusion. Certain of our current or future trademarks may become so well known by the public that their use becomes generic and they lose trademark protection. Over the long term, if we are unable to establish name recognition based on our trademarks and trade names, then we may not be able to compete effectively and our business, financial condition and results of operations may be adversely affected.

Risks Related to Government Regulation

Healthcare policy changes, including recently enacted legislation reforming the U.S. healthcare system, could harm our business, financial condition and results of operations.

In the United States, there have been and continue to be a number of legislative initiatives to contain healthcare costs. In March 2010, the Affordable Care Act was enacted in the United States, which made

a number of substantial changes in the way healthcare is financed by both governmental and private insurers. Among other ways in which it may affect our business, the Affordable Care Act:

- imposed an annual excise tax of 2.3% on any entity that manufactures or imports medical devices offered for sale in the United States, with limited exceptions (described in more detail below), although the effective rate paid may be lower. Through a series of legislative amendments, the tax was suspended for 2016 through 2019. Absent further legislative action, the device excise tax will be reinstated on medical device sales starting January 1, 2020;
- established a new Patient-Centered Outcomes Research Institute to oversee and identify priorities in comparative clinical effectiveness research in an effort to coordinate and develop such research;
- implemented payment system reforms including a national pilot program on payment bundling to encourage hospitals, physicians and other providers to improve the coordination, quality and efficiency of certain healthcare services through bundled payment models; and
- expanded the eligibility criteria for Medicaid programs.

We do not yet know the full impact that the Affordable Care Act will have on our business. The taxes imposed by the Affordable Care Act and the expansion in the government's role in the U.S. healthcare industry may result in decreased sale of our products and, lower reimbursement by payers for our products, all of which may have a material adverse effect on our business, financial condition and results of operations. The Trump Administration and the U.S. Congress may take further action regarding the Affordable Care Act, including, but not limited to, repeal or replacement. Most recently, the Tax Cuts and Jobs Act of 2017 was enacted, which, among other things, removes penalties for not complying with the individual mandate to carry health insurance. Additionally, all or a portion of the Affordable Care Act and related subsequent legislation may be modified, repealed or otherwise invalidated through judicial challenge, which could result in lower numbers of insured individuals, reduced coverage for insured individuals and adversely affect our business, financial condition and results of operations.

In addition, other legislative changes have been proposed and adopted since the Affordable Care Act was enacted. On August 2, 2011, the Budget Control Act of 2011 was signed into law, which, among other things, reduced Medicare payments to providers by 2% per fiscal year, effective on April 1, 2013 and, due to subsequent legislative amendments to the statute, will remain in effect through 2027 unless additional Congressional action is taken. On January 2, 2013, the American Taxpayer Relief Act of 2012 was signed into law, which, among other things, reduced Medicare payments to several providers, including hospitals, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. The Medicare Access and CHIP Reauthorization Act of 2015, or MACRA, enacted on April 16, 2015, repealed the formula by which Medicare made annual payment adjustments to physicians and replaced the former formula with fixed annual updates and a new system of incentive payments scheduled to begin in 2019 that are based on various performance measures and physicians' participation in alternative payment models such as accountable care organizations. It is unclear what effect new quality and payment programs, such as MACRA, may have on our business, financial condition, results of operations or cash flows.

We expect additional state and federal healthcare policies and reform measures to be adopted in the future. Any of these could make it more difficult and costly for us to obtain regulatory clearances or approvals for our products or to manufacture, market or distribute our products after clearance or approval is obtained. They could result in reduced demand for our products or result in additional pricing pressure. Any such reforms could have a material adverse effect on our industry generally and on our customers. Any changes of, or uncertainty with respect to, future coverage or reimbursement rates could affect demand for our products, which in turn could impact our ability to successfully commercialize our products and could have an adverse material effect on our business, financial condition and results of operations. Changes and reforms in the European Union could have similar effects.

Changes in the CMS fee schedules may harm our revenue and operating results.

Government payers, such as Centers for Medicare and Medicaid Services, or CMS, as well as insurers, have increased their efforts to control the cost, utilization and delivery of healthcare services. From time to time, the U.S. Congress has considered and implemented changes in the CMS fee schedules in conjunction with budgetary legislation. Reductions of reimbursement by Medicare or Medicaid for procedures that use our products or changes in policy regarding coverage of these procedures, such as adding requirements for payment, or prior authorizations, may be implemented from time to time. Reductions in the reimbursement rates and changes in payment policies of other third-party payers may occur as well. Similar changes in the past have resulted in reduced payments for procedures that use medical device products as well as added costs and have added more complex regulatory and administrative requirements. Further changes in federal, state, local and third-party payer regulations or policies may have a material adverse impact on the demand for our products and on our business. Actions by agencies regulating insurance or changes in other laws, regulations, or policies may also have a material adverse effect on our business, financial condition and results of operations.

If we fail to comply with broad based healthcare and other governmental regulations, we could face substantial fines and penalties and our business, results of operations and financial condition could be adversely affected.

The products we offer are highly regulated, and there can be no assurance that the regulatory environment in which we operate will not change significantly and adversely in the future. Our arrangements with physicians, hospitals and medical centers will expose us to broadly applicable fraud and abuse and other laws and regulations that may restrict the financial arrangements and relationships through which we market, sell and distribute our products. Our employees, consultants, and commercial partners may engage in misconduct or other improper activities, including non-compliance with regulatory standards and requirements. Federal and state healthcare laws and regulations that may affect our ability to conduct business, include, without limitation:

- federal and state laws and regulations regarding billing and claims payment applicable to TCAR and regulatory agencies enforcing those laws and regulations;
- FDA prohibitions against the advertisement, promotion and labeling of our products for off-label uses, or uses outside the specific indications approved by the FDA;
- the federal Anti-Kickback Statute, which broadly prohibits, among other things, any person from knowingly and willfully offering, soliciting, receiving or providing remuneration, directly or indirectly, in exchange for or to induce either the referral of an individual for, or the purchase, order or recommendation of, any good or service for which payment may be made under federal healthcare programs, such as the CMS programs. A person or entity does not need to have actual knowledge of the statute or specific intent to violate it to have committed a violation. Moreover, the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the federal civil False Claims Act. Violations of the federal Anti-Kickback Statute may result in civil monetary penalties up to $100,000 for each violation, plus up to three times the remuneration involved. Civil penalties for such conduct can further be assessed under the federal False Claims Act. Violations can also result in criminal penalties, including criminal fines of up to $100,000 and imprisonment of up to 10 years. Similarly, violations can result in mandatory exclusion from participation in government healthcare programs, including Medicare and Medicaid;
- the federal False Claims Act, which prohibits, among other things, individuals or entities from knowingly presenting, or causing to be presented, false claims, or knowingly using false statements, to obtain payment from the federal government. These laws can apply to manufacturers who provide inaccurate information on coverage, coding, and reimbursement of

their products to persons who bill third-party payers. Private individuals can bring False Claims Act “qui tam” actions, on behalf of the government and such individuals, commonly known as “whistleblowers,” may share in amounts paid by the entity to the government in fines or settlement. When an entity is determined to have violated the federal civil False Claims Act, the government may impose civil fines and penalties ranging from $11,181 to $22,363 for each false claim, plus treble damages, and exclude the entity from participation in Medicare, Medicaid and other federal healthcare programs;

- federal criminal laws that prohibit executing a scheme to defraud any healthcare benefit program or making, or causing to be made, false statements relating to healthcare matters;
- the federal Civil Monetary Penalties Law, which prohibits, among other things, offering or transferring remuneration to a federal healthcare beneficiary that a person knows or should know is likely to influence the beneficiary’s decision to order or receive items or services reimbursable by the government from a particular provider or supplier;
- the FCPA, the U.K. Bribery Act of 2010, and other local anti-corruption laws that apply to our international activities;
- the federal Physician Payment Sunshine Act, or Open Payments, created under the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Affordability Reconciliation Act, or Affordable Care Act, and its implementing regulations, which requires manufacturers of drugs, medical devices, biologicals and medical supplies for which payment is available under Medicare, Medicaid, or the Children’s Health Insurance Program to report annually to the U.S. Department of Health and Human Services, or HHS, information related to payments or other transfers of value made to licensed physicians, certain other healthcare professionals, and teaching hospitals, and requires applicable manufacturers and group purchasing organizations, to report annually ownership and investment interests held by physicians and their immediate family members. Applicable manufacturers are required to submit annual reports to CMS. Our failure to submit required information on time may result in civil monetary penalties of $11,052 per failure up to an aggregate of $165,786 per year (or up to an aggregate of $1.105 million per year for “knowing failures”), for all payments, transfers of value or ownership or investment interests that are not timely, accurately, and completely reported in an annual submission, and may result in liability under other federal laws or regulations;
- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, and its implementing regulations, which impose certain requirements relating to the privacy, security and transmission of individually identifiable health information; HIPAA also created criminal liability for knowingly and willfully falsifying or concealing a material fact or making a materially false statement in connection with the delivery of or payment for healthcare benefits, items or services. Failure to comply with the HIPAA privacy and security standards when applicable can result in civil monetary penalties up to $55,910 per violation, not to exceed $1.68 million per calendar year for non-compliance of an identical provision, and, in certain circumstances, criminal penalties with fines up to $250,000 per violation and/or imprisonment. State attorneys general can also bring a civil action to enjoin a HIPAA violation or to obtain statutory damages on behalf of residents of his or her state; and
- analogous state and foreign law equivalents of each of the above federal laws, such as anti-kickback and false claims laws which may apply to items or services reimbursed by any third-party payer, including commercial insurers or patients; state laws that require device companies to comply with the industry’s voluntary compliance guidelines and the applicable compliance guidance promulgated by the federal government or otherwise restrict payments that may be made to healthcare providers and other potential referral sources; state laws that require device manufacturers to report information related to payments and other transfers of

value to physicians and other healthcare providers or marketing expenditures; consumer protection and unfair competition laws, which broadly regulate marketplace activities and activities that potentially harm customers, foreign and state laws, including the E.U. General Data Protection Regulation, or GDPR, governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and may not have the same effect, thus complicating compliance efforts; and state laws related to insurance fraud in the case of claims involving private insurers.

Because of the breadth of these laws and the narrowness of available statutory and regulatory exemptions or safe harbors, it is possible that some of our activities, such as stock-option compensation paid to physicians, could be subject to challenge under one or more of such laws. Any action brought against us for violations of these laws or regulations, even successfully defended, could cause us to incur significant legal expenses and divert our management's attention from the operation of our business. We may be subject to private "qui tam" actions brought by individual whistleblowers on behalf of the federal or state governments.

The growth of our business and sales organization and our expansion outside of the United States may increase the potential of violating these laws or our internal policies and procedures. The risk of our being found in violation of these or other laws and regulations is further increased by the fact that many have not been fully interpreted by the regulatory authorities or the courts, and their provisions are open to a variety of interpretations. Any action brought against us for violation of these or other laws or regulations, even if we successfully defend against it, could cause us to incur significant legal expenses and divert our management's attention from the operation of our business. If our operations are found to be in violation of any of the federal, state and foreign laws described above or any other current or future fraud and abuse or other healthcare laws and regulations that apply to us, we may be subject to penalties, including significant criminal, civil, and administrative penalties, damages, fines, imprisonment, for individuals, exclusion from participation in government programs, such as Medicare and Medicaid, and we could be required to curtail or cease our operations. Any of the foregoing consequences could seriously harm our business and our financial results.

If we fail to obtain and maintain necessary regulatory clearances or approvals for our products, or if clearances or approvals for future products and indications are delayed or not issued, our commercial operations would be harmed.

Our products are subject to extensive regulation by the FDA in the United States and by regulatory agencies in other countries where we do business. Government regulations specific to medical devices are wide ranging and govern, among other things:

- product design, development and manufacture;
- laboratory, preclinical and clinical testing, labeling, packaging, storage and distribution;
- premarketing clearance or approval;
- record keeping;
- product marketing, promotion and advertising, sales and distribution; and
- post marketing surveillance, including reporting of deaths or serious injuries and recalls and correction and removals.

Before a new medical device, or a new intended use for an existing product, can be marketed in the United States, a company must first submit and receive either 510(k) clearance pursuant to Section 510(k) of the Food, Drug and Cosmetic Act, or the FDCA, or approval of a premarket approval, or PMA, application from the FDA, unless an exemption applies.

In many cases, the process of obtaining PMA approval, which was required for the ENROUTE stent, is much more rigorous, costly, lengthy and uncertain than the 510(k) clearance process. In the 510(k) clearance process, the FDA must determine that a proposed device is "substantially equivalent" to a device legally on the market, known as a "predicate" device, in order to clear the proposed device for marketing. To be "substantially equivalent," the proposed device must have the same intended use as the predicate device, and either have the same technological characteristics as the predicate device or have different technological characteristics and not raise different questions of safety or effectiveness than the predicate device. Clinical data is sometimes required to support substantial equivalence. In the PMA approval process, the FDA must determine that a proposed device is safe and effective for its intended use based on extensive data, including technical, pre-clinical, clinical trial, manufacturing and labeling data. The PMA process is typically required for devices for which the 510(k) process cannot be used and that are deemed to pose the greatest risk. Modifications to products that are approved through a PMA application generally need prior FDA approval of a PMA supplement. Similarly, some modifications made to products cleared through a 510(k) may require a new 510(k), or such modification may put the device into class III and require PMA approval. The FDA's 510(k) clearance process usually takes from three to 12 months, but may last longer. The process of obtaining a PMA generally takes from one to three years, or even longer, from the time the PMA is submitted to the FDA until an approval is obtained. Any delay or failure to obtain necessary regulatory approvals or clearances would have a material adverse effect on our business, financial condition and results of operations.

The FDA can delay, limit or deny clearance or approval of a device for many reasons, including:

- our inability to demonstrate to the satisfaction of the FDA or the applicable regulatory entity or notified body that our products are safe or effective for their intended uses;
- the disagreement of the FDA or the applicable foreign regulatory body with the design, conduct or implementation of our clinical trials or the analyses or interpretation of data from pre-clinical studies or clinical trials;
- serious and unexpected adverse device effects experienced by participants in our clinical trials;
- the data from our pre-clinical studies and clinical trials may be insufficient to support clearance or approval, where required;
- our inability to demonstrate that the clinical and other benefits of the device outweigh the risks;
- an advisory committee, if convened by the applicable regulatory authority, may recommend against approval of our application or may recommend that the applicable regulatory authority require, as a condition of approval, additional preclinical studies or clinical trials, limitations on approved labeling or distribution and use restrictions, or even if an advisory committee, if convened, makes a favorable recommendation, the respective regulatory authority may still not approve the product;
- the applicable regulatory authority may identify significant deficiencies in our manufacturing processes, facilities or analytical methods or those of our third party contract manufacturers;
- the potential for approval policies or regulations of the FDA or applicable foreign regulatory bodies to change significantly in a manner rendering our clinical data or regulatory filings insufficient for clearance or approval; and
- the FDA or foreign regulatory authorities may audit our clinical trial data and conclude that the data is not sufficiently reliable to support approval or clearance.

Similarly, regulators may determine that our financial relationships with our principal investigators resulted in a perceived or actual conflict of interest that may have affected the interpretation of a study, the integrity of the data generated at the applicable clinical trial site or the utility of the clinical trial itself.

Even if we are granted regulatory clearances or approvals, they may include significant limitations on the indicated uses for the product, which may limit the market for the product. Moreover, the FDA and European Union regulatory authorities strictly regulate the labeling, promotion and advertising of our products, including comparative and superiority claims vis a vis competitors' products, that may be made about products.

As a condition of approving a PMA application, the FDA may also require some form of post-approval study or post-market surveillance, whereby the applicant conducts a follow-up study or follows certain patient groups for a number of years and makes periodic reports to the FDA on the clinical status of those patients when necessary to protect the public health or to provide additional safety and effectiveness data for the device. As a part of our PMA approval, we agreed with the FDA to conduct a post-approval study at least 30 sites in the United States to evaluate the safety and effectiveness of our products in at least 600 subjects. Thereafter, the product labeling must be updated and submitted in a PMA supplement, including any adverse event data, from the post-approval study. Failure to conduct the post-approval study in compliance with applicable regulations or to timely complete required post-approval studies or comply with other post-approval requirements could result in withdrawal of approval of the PMA, which would harm our business.

In addition, we are required to timely file various reports with the FDA, including MDRs that require that we report to the regulatory authorities if our products may have caused or contributed to a death or serious injury or malfunctioned in a way that would likely cause or contribute to a death or serious injury if the malfunction were to recur. If these reports are not filed in a timely manner, regulators may impose sanctions and we may be subject to product liability or regulatory enforcement actions, all of which could harm our business. As of December 1, 2018, we had filed 45 MDR reports with the FDA for adverse events including stroke, arterial dissection, stent thrombosis and wound complications.

If we initiate a correction or removal action for our products to reduce a significant risk to health posed by our products, we would be required to submit a publicly available correction and removal report to the FDA and, in many cases, similar reports to other regulatory agencies. This report could be classified by the FDA as a device recall which could lead to increased scrutiny by the FDA, other international regulatory agencies and our customers regarding the quality and safety of our products. Furthermore, the submission of these reports could be used by competitors against us and cause physicians to delay or cancel prescriptions, which could harm our reputation.

The FDA and the Federal Trade Commission, or FTC, also regulate the advertising, promotion and labeling of our products to ensure that the claims we make are consistent with our regulatory clearances and approvals, that there is adequate and reasonable scientific data to substantiate the claims and that our promotional labeling and advertising is neither false nor misleading in any respect. If the FDA or FTC determines that any of our advertising or promotional claims are misleading, not substantiated or not permissible, we may be subject to enforcement actions, including adverse publicity, warning letters, and we may be required to revise our promotional claims and make other corrections or restitutions.

The FDA and state authorities have broad enforcement powers. Our failure to comply with applicable regulatory requirements could result in enforcement action by the FDA or state agencies, which may include any of the following sanctions:

- adverse publicity, warning letters, fines, injunctions, consent decrees and civil penalties;
- repair, replacement, refunds, recalls, termination of distribution, administrative detention or seizure of our products;
- operating restrictions, partial suspension or total shutdown of production;

- denial of our requests for 510(k) clearance or premarket approval of new products, new intended uses or modifications to existing products;
- withdrawal of 510(k) clearance or premarket approvals that have already been granted; and
- criminal prosecution.

If any of these events were to occur, our business and financial condition could be harmed. In addition, the FDA's and other regulatory authorities' policies may change and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of our products. For example, in December 2016, the 21st Century Cures Act, or Cures Act, was signed into law. The Cures Act, among other things, is intended to modernize the regulation of medical devices and spur innovation, but its ultimate implementation is unclear. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may lose any marketing approval that we may have obtained and we may not achieve or sustain profitability, which would adversely affect our business, financial condition and results of operations.

Our clinical trials may fail to demonstrate competent and reliable evidence of the safety and effectiveness of our products, which would prevent or delay commercialization of our products in development.

We may be required to conduct clinical studies that demonstrate competent and reliable evidence that our products are safe and effective before we can commercialize our products. Clinical testing is expensive and can take many years to complete, and its outcome is inherently uncertain. We cannot be certain that our planned clinical trials or any other future clinical trials will be successful. In addition, even if such clinical trials are successfully completed, we cannot guarantee that the FDA or foreign regulatory authorities will interpret the results as we do, and more trials could be required before we submit our products for approval. To the extent that the results of the trials are not satisfactory to the FDA or foreign regulatory authorities for support of a marketing application, we may be required to expend significant resources, which may not be available to us, to conduct additional trials in support of potential approval of our products. Even if regulatory approval is secured for any of our products, the terms of such approval may limit the scope and use of our products, which may also limit their commercial potential.

Material modifications to our products may require new 510(k) clearances, premarket approval, or CE Marks, or may require us to recall or cease marketing our products until new clearances or approvals are obtained.

Material modifications to the intended use or technological characteristics of our products will require new 510(k) clearances, premarket approvals or CE Marks prior to implementing the modifications, or require us to recall or cease marketing the modified devices until these clearances or approvals are obtained. Furthermore, changes to our manufacturing facility or supplier of components used in our products require prior FDA approval of a PMA supplement. The FDA requires device manufacturers to initially make and document a determination of whether or not a modification requires a new approval, supplement or clearance; however, the FDA can review a manufacturer's decision. Any modification to an FDA cleared device that would significantly affect its safety or effectiveness or that would constitute a major change in its intended use would require a new 510(k) clearance or approval of a PMA supplement. We may not be able to obtain additional 510(k) clearances or premarket approvals for new products or for modifications to, or additional indications for, our products in a timely fashion, or at all. Delays in obtaining required future clearances would harm our ability to introduce new or enhanced products in a timely manner, which in turn would harm our future growth. We have made modifications to our products in the past that we believe do not require additional clearances or approvals, and we may make additional modifications in the future. If the FDA or an EU Notified Body disagrees and requires new clearances or approvals for any of these modifications, we may be required to recall and to stop selling or marketing our

products as modified, which could harm our operating results and require us to redesign our products. In these circumstances, we may be subject to significant enforcement actions.

If we, or our suppliers, fail to comply with the FDA's QSR or the European Union's Medical Device Directive, our manufacturing or distribution operations could be delayed or shut down and our revenue could suffer.

Our manufacturing and design processes and those of our third-party component suppliers are required to comply with the FDA's Quality System Regulation, or QSR, and the European Union's Medical Device Directive, or MDD, both of which cover procedures and documentation of the design, testing, production, control, quality assurance, labeling, packaging, storage and shipping of our products. We are also subject to similar state requirements and licenses, and to ongoing ISO 13485 compliance in our operations, including design, manufacturing, and service, to maintain our CE Mark. In addition, we must engage in extensive recordkeeping and reporting and must make available our facilities and records for periodic unannounced inspections by governmental agencies, including the FDA, state authorities, EU Notified Bodies and comparable agencies in other countries. If we fail a regulatory inspection, our operations could be disrupted and our manufacturing interrupted. Failure to take timely and adequate corrective action in response to an adverse regulatory inspection could result in, among other things, a shutdown of our manufacturing or product distribution operations, significant fines, suspension of marketing clearances and approvals, seizures or recalls of our device, operating restrictions and criminal prosecutions, any of which would cause our business to suffer. Furthermore, our key component suppliers may not currently be or may not continue to be in compliance with applicable regulatory requirements, which may result in manufacturing delays for our products and cause our revenue to decline.

We are registered with the FDA as a medical device specifications developer and manufacturer. The FDA has broad post-market and regulatory enforcement powers. We are subject to unannounced inspections by the FDA and the Food and Drug Branch of the California Department of Public Health, or CDPH, and our Notified Body to determine our compliance with the QSR and other regulations at both our design and manufacturing facilities, and these inspections may include the manufacturing facilities of our suppliers.

We can provide no assurance that we will continue to remain in material compliance with the QSR or MDD. If the FDA, CDPH or our notified body in the European Union, the British Standards Institution, or BSI, inspect any of our facilities and discover compliance problems, we may have to cease manufacturing and product distribution until we can take the appropriate remedial steps to correct the audit findings. Taking corrective action may be expensive, time consuming and a distraction for management and if we experience a delay at our manufacturing facility we may be unable to produce our products, which would harm our business.

With the transition from the MDD to the new European Union Medical Device Regulation, or MDR, notified bodies are required to seek designation to operate as conformity assessment authorities under the new law, which is effective in May 2020. Should our notified body fail to obtain such designation or the scope of their designation does not include our product category, then our ability to apply the CE mark and commercialize in the European Union may be interrupted. Identification and engagement of a new and properly designated notified body is a time consuming process that may require comprehensive quality system audits and new conformity assessment certifications for our products.

The impact of the new EU Medical Device Regulation may be costly and disruptive to our business.

In 2017, the European Union released new regulations to ensure patient safety with the use of pharmaceuticals, medical devices and in-vitro diagnostics that will go into effect over a three-year period

from 2020 to 2022. The new regulations replace predecessor directives and emphasize a global convergence of regulations. Major changes include:

- reclassification of some products;
- greater emphasis on clinical data;
- data transparency, including publication of clinical trial data and safety summaries;
- defined content and structure for technical files to support registration;
- unique device identification system;
- greater burden on post-market surveillance and clinical follow-up;
- reduction of adverse event reporting time from 30 to 15 days after the event; and
- more power to notified bodies.

Complying with these new regulations may result in Europe being less attractive as a “first market” destination. Marketing authorization timelines will become more protracted and the costs of operating in Europe will increase. A significantly more costly path to regulatory compliance is anticipated. Adjusting to the new Medical Device Regulation may prove to be costly and disruptive to our business.

Our products may in the future be subject to product recalls that could harm our reputation.

The FDA and similar governmental authorities in other countries have the authority to require the recall of commercialized products in the event of material regulatory deficiencies or defects in design or manufacture. A government mandated or voluntary recall by us could occur as a result of component failures, manufacturing errors or design or labeling defects. Recalls of our products would divert managerial attention, be expensive, harm our reputation with customers and harm our financial condition and results of operations. A recall announcement would also negatively affect our stock price.

Compliance with environmental laws and regulations could be expensive, and failure to comply with these laws and regulations could subject us to significant liability.

Our research and development and manufacturing operations involve the use of hazardous substances and are subject to a variety of federal, state, local and foreign environmental laws and regulations relating to the storage, use, discharge, disposal, remediation of, and human exposure to, hazardous substances and the sale, labeling, collection, recycling, treatment and disposal of products containing hazardous substances. Liability under environmental laws and regulations can be joint and several and without regard to fault or negligence. Compliance with environmental laws and regulations may be expensive and noncompliance could result in substantial liabilities, fines and penalties, personal injury and third-party property damage claims and substantial investigation and remediation costs. Environmental laws and regulations could become more stringent over time, imposing greater compliance costs and increasing risks and penalties associated with violations. We cannot assure you that violations of these laws and regulations will not occur in the future or have not occurred in the past as a result of human error, accidents, equipment failure or other causes. The expense associated with environmental regulation and remediation could harm our financial condition and operating results.

Risks Related to This Offering

Our common stock has never been publicly traded, and we expect that the price of our common stock will fluctuate substantially.

Before this initial public offering, there has been no public market for our common stock. An active public trading market may not develop after completion of this offering or, if developed, may not be sustained. The lack of an active market may impair your ability to sell your shares at the time you wish to sell them or at a price that you consider reasonable. An inactive market may also impair our ability to raise capital by selling shares and may impair our ability to acquire other products, technologies or businesses using our shares as consideration. Furthermore, although we have been approved to list our common stock on The NASDAQ Stock Market, even if listed, there can be no guarantee that we will continue to satisfy the continued listing standards of The NASDAQ Stock Market. If we fail to satisfy the continued listing standards, we could be de-listed, which would have a negative effect on the price of our common stock.

The initial public offering price for our common stock will be determined through negotiations between the underwriters and us and may vary substantially from the market price of our common stock following this offering. This price may not reflect the public trading price of our common stock following this offering, which will be affected by a number of factors, including:

- changes in analysts' estimates, investors' perceptions, recommendations by securities analysts or our failure to achieve analysts' estimates;
- quarterly variations in our or our competitors' results of operations;
- periodic fluctuations in our revenue, which could be due in part to the way in which we recognize revenue;
- the financial projections we may provide to the public, any changes in these projections or our failure to meet these projections;
- general market conditions and other factors unrelated to our operating performance or the operating performance of our competitors;
- changes in reimbursement by current or potential payers;
- changes in operating performance and stock market valuations of other technology companies generally, or those in the medical device industry in particular;
- actual or anticipated changes in regulatory oversight of our products;
- the results of our clinical trials;
- the loss of key personnel, including changes in our board of directors and management;
- product recalls or other problems associated with our products;
- legislation or regulation of our market;
- lawsuits threatened or filed against us, including litigation by current or former employees alleging wrongful termination, sexual harassment, whistleblower or other claims;
- the announcement of new products or product enhancements by us or our competitors;
- announced or completed acquisitions of businesses or technologies by us or our competitors;
- announcements related to patents issued to us or our competitors and related litigation; and

- developments in our industry.

In recent years, the stock markets generally have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of listed companies. Broad market and industry factors may significantly affect the market price of our common stock, regardless of our actual operating performance. These fluctuations may be even more pronounced in the trading market for our common stock shortly following this offering. If the market price of shares of our common stock after this offering does not ever exceed the initial public offering price, you may not realize any return on your investment in us and may lose some or all of your investment.

In addition, in the past, stockholders have instituted securities class action litigation following periods of market volatility. If we were to become involved in securities litigation, it could subject us to substantial costs, divert resources and the attention of management from our business and harm our business, results of operations, financial condition and reputation. These factors may materially and adversely affect the market price of our common stock.

If securities or industry analysts do not publish research or reports about our business, or publish negative reports about our business, our share price and trading volume could decline.

The trading market for our common stock will depend in part on the research and reports that securities or industry analysts publish about us or our business, our market and our competitors. We do not have any control over these analysts. If one or more of the analysts who cover us downgrade our shares or change their opinion of our business, our share price would likely decline. If one or more of these analysts cease coverage of our company or fail to regularly publish reports on us, we could lose visibility in the financial markets, which could cause our share price or trading volume to decline.

A sale of a substantial number of shares of our common stock may cause the price of our common stock to decline.

If our existing stockholders sell, or indicate an intention to sell, substantial amounts of our common stock in the public market after the lapse of lock-up and other legal restrictions on resale discussed in this prospectus, the trading price of our common stock could decline. Based on shares outstanding as of December 31, 2018, upon completion of this offering, we will have outstanding a total of shares of common stock. Of these shares, all of the shares of common stock sold in this offering will be freely tradable, without restriction, in the public market immediately after the offering. Each of our directors and officers and substantially all of our other stockholders and option holders have entered into a lock-up agreement with the underwriters that restricts their ability to sell or transfer their shares. The lock-up agreements pertaining to this offering will expire 180 days from the date of this prospectus. The underwriters, however, may, in their sole discretion, waive the contractual lock-up prior to the expiration of the lock-up agreements. After the lock-up agreements expire, based on shares outstanding as December 31, 2018, shares of common stock, plus any shares purchased in this offering by our existing investors, will be eligible for sale in the public market, of which shares will be held by directors, executive officers and other affiliates and will be subject to volume limitations under Rule 144 under the Securities Act of 1933, as amended, or the Securities Act, and various vesting agreements. In addition, shares of common stock that are subject to outstanding options as of December 31, 2018, will become eligible for sale in the public market to the extent permitted by the provisions of various vesting agreements, the lock-up agreements and Rules 144 and 701 under the Securities Act. We intend to file a registration statement on Form S-8 under the Securities Act covering all of the shares of common stock subject to options outstanding and reserved for issuance under our stock plans. This registration statement will become effective immediately upon filing, and shares covered by this registration statement will be eligible for sale in the public markets, subject to Rule 144 limitations applicable to affiliates and any lock-up agreements described above. If these additional shares are sold, or if it is perceived that they will be sold, in the public market, the trading price of our common stock could decline.

After this offering, the holders of an aggregate of shares of our outstanding common stock as of December 31, 2018, will have rights, subject to some conditions, to require us to file registration statements covering their shares or to include their shares in registration statements that we may file for ourselves or our stockholders. Registration of these shares under the Securities Act would result in the shares becoming freely tradable without restriction under the Securities Act, except for shares held by our affiliates as defined in Rule 144 under the Securities Act. Any sales of securities by these stockholders could have a material adverse effect on the market price of our common stock.

Our directors, officers and principal stockholders have significant voting power and may take actions that may not be in the best interests of our other stockholders.

As of December 31, 2018, our directors, officers and each stockholder holding 5% or more of our outstanding common stock and their affiliates beneficially owned approximately % of our outstanding common stock in the aggregate, assuming the exercise of all options held by such persons. We expect that immediately following completion of this offering, our directors, officers and each stockholder holding 5% or more of our outstanding common stock and their affiliates will beneficially own approximately % of the outstanding shares of our common stock in the aggregate, based on the number of shares outstanding as of December 31, 2018 and assuming the exercise of all options held by such persons. As a result, these stockholders, if they act together, will be able to exert significant influence over the management and affairs of our company and most matters requiring stockholder approval, including the election of directors and approval of significant corporate transactions. This concentration of ownership may have the effect of delaying or preventing a change in control, might adversely affect the market price of our common stock and may not be in the best interests of our other stockholders.

We will have broad discretion in the use of net proceeds from this offering.

The principal purpose of this offering is to provide additional capital to us. We intend to use the net proceeds from this offering to expand our sales force and operations, increase our research and development activities, conduct or sponsor clinical studies and trials, promote international expansion, and provide for working capital and other general corporate purposes. We may also use a portion of the net proceeds from this offering for the acquisition of, or strategic investment in, technologies, solutions or businesses that complement our business, although we have no present commitments or agreements to enter into any such acquisition or investment. Within these categories, our management will have broad discretion over the use and investment of the net proceeds of this offering, and accordingly, investors in this offering will need to rely upon the judgment of our management with respect to the use of proceeds with only limited information concerning management's specific intentions. We will not receive any proceeds from the sale of shares to be offered by the selling stockholders.

We have identified two material weaknesses in our internal control over financial reporting and may identify additional material weaknesses in the future or otherwise fail to maintain an effective system of internal controls, which may result in material misstatements of our financial statements or cause us to fail to meet our periodic reporting obligations.

Prior to this offering, we were a private company and had limited accounting and financial reporting personnel and other resources with which to address our internal controls and procedures. In connection with the audit of our consolidated financial statements for the year ended December 31, 2017, we and our independent registered public accounting firm identified two material weaknesses in our internal control over financial reporting. A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis.

We determined that we had a material weakness because we did not maintain a sufficient complement of personnel with an appropriate degree of knowledge, experience, and training,

commensurate with our accounting and reporting requirements. As a result, there were a number of post initial close adjustments that were material to the financial statements.

The second material weakness relates to the fact that we did not appropriately design and implement controls over the review and approval of manual journal entries and the related supporting journal entry calculations resulting in inappropriate segregation of duties over manual journal entries. This material weakness could result in a misstatement of account balances or disclosures that would result in a material misstatement to the annual or interim consolidated financial statements that would not be prevented or detected.

We intend to take steps to remediate the material weaknesses, including increasing the depth and experience within our accounting and finance organization, as well as designing and implementing additional and improved processes and internal controls. While we intend to implement a plan to remediate the material weaknesses, we cannot predict the success of such plan or the outcome of our assessment of these plans at this time. We can give no assurance that this implementation will remediate these deficiencies in internal control or that additional material weaknesses or significant deficiencies in our internal control over financial reporting will not be identified in the future. Our failure to implement and maintain effective internal control over financial reporting could result in errors in our financial statements that could result in a restatement of our financial statements, causing us to fail to meet our reporting obligations.

As a result of becoming a public company, we will be obligated to develop and maintain proper and effective internal controls over financial reporting and any failure to maintain the adequacy of these internal controls may adversely affect investor confidence in our company and, as a result, the value of our ordinary shares.

We will be required, pursuant to Section 404 of the Sarbanes-Oxley Act, or Section 404, to furnish a report by management on the effectiveness of our internal control over financial reporting for the first fiscal year beginning after the effective date of this offering. This assessment will need to include disclosure of any material weaknesses identified by our management in our internal control over financial reporting. Our independent registered public accounting firm will not be required to attest to the effectiveness of our internal control over financial reporting until our first annual report required to be filed with the SEC following the date we are no longer an “emerging growth company,” as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. At such time as we are required to obtain auditor attestation, if we then have a material weakness, we would receive an adverse opinion regarding our internal control over financial reporting from our independent registered accounting firm.

We are beginning the costly and challenging process of compiling the system and processing documentation necessary to perform the evaluation needed to comply with Section 404, and we may not be able to complete our evaluation, testing and any required remediation in a timely fashion. Our compliance with Section 404 will require that we incur substantial accounting expense and expend significant management efforts. We currently do not have an internal audit group, and we will need to hire additional accounting and financial staff with appropriate public company experience and technical accounting knowledge and compile the system and process documentation necessary to perform the evaluation needed to comply with Section 404.

During our evaluation of our internal control, if we identify one or more material weaknesses in our internal control over financial reporting, we will be unable to assert that our internal control over financial reporting is effective. We cannot assure you that there will not be material weaknesses or significant deficiencies in our internal control over financial reporting in the future. Any failure to maintain internal control over financial reporting could severely inhibit our ability to accurately report our financial condition or results of operations. If we are unable to conclude that our internal control over financial reporting is effective, or if our independent registered public accounting firm determines we have a material weakness or significant deficiency in our internal control over financial reporting, we could lose investor confidence

in the accuracy and completeness of our financial reports, the market price of our ordinary shares could decline, and we could be subject to sanctions or investigations by NASDAQ, the SEC or other regulatory authorities. Failure to remedy any material weakness in our internal control over financial reporting, or to implement or maintain other effective control systems required of public companies, could also restrict our future access to the capital markets.

We are an "emerging growth company" and we cannot be certain if the reduced disclosure requirements applicable to "emerging growth companies" will make our common stock less attractive to investors.

We currently qualify as an "emerging growth company" under the JOBS Act. For as long as we continue to be an emerging growth company, we may take advantage of certain exemptions from reporting requirements that are applicable to other public companies including, but not limited to, not being required to comply with the auditor attestation requirements of Section 404, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. We cannot predict if investors will find our common stock less attractive to the extent we rely on available exemptions. If some investors do find our common stock less attractive, there may be a less active trading market for our common stock and our stock price may be more volatile or may decline.

We will remain an emerging growth company until the earlier of (1) the last day of the fiscal year following the fifth anniversary of the completion of this offering, (2) the last day of the fiscal year in which we have total annual revenue of more than $1.07 billion, (3) the date on which we are deemed to be a large accelerated filer, which means the market value of our common stock that is held by non-affiliates exceeds $700 million as of the prior June 30th, and (4) the date on which we have issued more than $1.0 billion in non-convertible debt securities during the prior three-year period.

Anti-takeover provisions in our amended and restated certificate of incorporation and bylaws, and Delaware law, could discourage a change in control of our company or a change in our management.

Our amended and restated certificate of incorporation and bylaws, as amended and restated in connection with this offering, will contain provisions that might enable our management to resist a takeover. These provisions include:

- a classified board of directors;
- advance notice requirements applicable to stockholders for matters to be brought before a meeting of stockholders and requirements as to the form and content of a stockholders' notice;
- a supermajority stockholder vote requirement for amending certain provisions of our amended and restated certificate of incorporation and bylaws;
- the right to issue preferred stock without stockholder approval, which could be used to dilute the stock ownership of a potential hostile acquirer;
- allowing stockholders to remove directors only for cause;
- a requirement that the authorized number of directors may be changed only by resolution of the board of directors;
- allowing all vacancies, including newly created directorships, to be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum, except as otherwise required by law;

- a requirement that our stockholders may only take action at annual or special meetings of our stockholders and not by written consent;
- limiting the forum to Delaware for certain litigation against us; and
- limiting the persons that can call special meetings of our stockholders to our board of directors, the chairperson of our board of directors, the chief executive officer or the president, in the absence of a chief executive officer.

These provisions might discourage, delay or prevent a change in control of our company or a change in our management. The existence of these provisions could adversely affect the voting power of holders of common stock and limit the price that investors might be willing to pay in the future for shares of our common stock. In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which generally prohibits a Delaware corporation from engaging in any of a broad range of business combinations with any "interested" stockholder for a period of three years following the date on which the stockholder became an "interested" stockholder. See "Description of Capital Stock."

Our amended and restated certificate of incorporation will provide that the Court of Chancery of the State of Delaware will be the sole and exclusive forum for substantially all disputes between us and our stockholders, which could limit our stockholders' abilities to obtain a favorable judicial forum for disputes with us or our directors, officers or employees.

Our amended and restated certificate of incorporation, which will become effective prior to the completion of this offering, provides that, unless we consent to the selection of an alternative forum, the Court of Chancery of the State of Delaware is the sole and exclusive forum for: (i) any derivative action or proceeding brought on our behalf, (ii) any action asserting a claim of breach of fiduciary duty owed by any of our directors, officers or other employees to us or to our stockholders, (iii) any action asserting a claim arising pursuant to the Delaware General Corporation Law or our amended and restated certificate of incorporation or bylaws, (iv) any action to interpret, apply, enforce or determine the validity of our amended and restated certificate of incorporation or bylaws, or (v) any action asserting a claim governed by the internal affairs doctrine, other than suits brought to enforce any liability or duty created by the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction. The choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers or other employees, which may discourage such lawsuits against us and our directors, officers and other employees. Alternatively, if a court were to find the choice of forum provision contained in our amended and restated certificate of incorporation to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could harm our business, financial condition and operating results.

We have not paid dividends in the past and do not expect to pay dividends in the future, and, as a result, any return on investment may be limited to the value of our stock.

We have never paid cash dividends and do not anticipate paying cash dividends in the foreseeable future. The payment of dividends will depend on our earnings, capital requirements, financial condition, prospects for future earnings and other factors our board of directors may deem relevant. In addition, our loan agreement limits our ability to, among other things, pay dividends or make other distributions or payments on account of our common stock, in each case subject to certain exceptions. If we do not pay dividends, our stock may be less valuable because a return on your investment will only occur if our stock price appreciates and you then sell our common stock.

If we are unable to implement and maintain effective internal control over financial reporting, investors may lose confidence in the accuracy and completeness of our reported financial information and the market price of our common stock may be negatively affected.

Our chief financial officer has not been the chief financial officer of a publicly traded company and our chief executive officer has not been the chief executive officer of a publicly traded company. Neither has been involved in the transition of a private company to a public company through an initial public offering. As a public company, we will be required to maintain internal control over financial reporting and to report any material weaknesses in such internal control. We will be required, pursuant to Section 404, to evaluate and determine the effectiveness of our internal control over financial reporting and, beginning with our second annual report after the completion of this offering, provide a management report on the internal control over financial reporting. This assessment will need to include disclosure of any material weaknesses identified by our management in our internal control over financial reporting. Our independent registered public accounting firm will not be required to attest to the effectiveness of our internal control over financial reporting until our first annual report required to be filed with the SEC following the date we are no longer an "emerging growth company," as defined in the JOBS Act. At such time as we are required to obtain auditor attestation, if we then have a material weakness, we would receive an adverse opinion regarding our internal control over financial reporting from our independent registered accounting firm. If we have a material weakness in our internal control over financial reporting, we may not detect errors on a timely basis and our financial statements may be materially misstated. We are implementing the process and documentation necessary to perform the evaluation needed to comply with Section 404. We may not be able to complete our evaluation, testing and any required remediation in a timely fashion.

If we have material weaknesses in our internal control over financial reporting, we may not detect errors on a timely basis and our financial statements may be materially misstated. We are beginning the costly and challenging process of compiling the system and processing documentation necessary to perform the evaluation needed to comply with Section 404, and we may not be able to complete our evaluation, testing and any required remediation in a timely fashion. Our compliance with Section 404 will require that we incur substantial accounting expense and expend significant management efforts. We currently do not have an internal audit group, and we will need to hire additional accounting and financial staff with appropriate public company experience and technical accounting knowledge and compile the system and process documentation necessary to perform the evaluation needed to comply with Section 404.

During our evaluation of our internal control, if we identify one or more material weaknesses in our internal control over financial reporting, we will be unable to assert that our internal control over financial reporting is effective. We cannot assure you that there will not be material weaknesses or significant deficiencies in our internal control over financial reporting in the future. Any failure to maintain internal control over financial reporting could severely inhibit our ability to accurately report our financial condition or results of operations. If we are unable to conclude that our internal control over financial reporting is effective, or if our independent registered public accounting firm determines we have a material weakness or significant deficiency in our internal control over financial reporting, we could lose investor confidence in the accuracy and completeness of our financial reports, the market price of our ordinary shares could decline, and we could be subject to sanctions or investigations by NASDAQ, the SEC or other regulatory authorities, which could require additional financial and management resources and could result in fines, trading suspensions or other remedies. Failure to remedy any material weakness in our internal control over financial reporting, or to implement or maintain other effective control systems required of public companies, could also restrict our future access to the capital markets.

New investors purchasing our common stock will experience immediate and substantial dilution.

Our initial public offering price is substantially higher than the book value per share of our common stock. If you purchase common stock in this offering, you will incur immediate dilution of $ in net tangible book value per share of common stock, based on an assumed initial public offering price of $ per share (which is the midpoint of the price range set forth on the cover page of this prospectus). In addition, the number of shares available for issuance under our stock option and employee stock purchase plans will increase annually without further stockholder approval. Investors will incur additional dilution upon the exercise of stock options and warrants. See “Dilution.”

CAUTIONARY NOTES REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements concerning our business, operations and financial performance and condition, as well as our plans, objectives and expectations for our business, operations and financial performance and condition. Any statements contained herein that are not statements of historical facts may be deemed to be forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as “anticipate,” “assume,” “believe,” “contemplate,” “continue,” “could,” “due,” “estimate,” “expect,” “goal,” “intend,” “may,” “objective,” “plan,” “predict,” “potential,” “positioned,” “seek,” “should,” “target,” “will,” “would” and other similar expressions that are predictions of or indicate future events and future trends, or the negative of these terms or other comparable terminology.

These forward-looking statements include, but are not limited to, statements about:

- our plans to conduct further clinical trials;
- our plans and expected timeline related to our products, or developing new products, to address additional indications or otherwise;
- the expected use of our products by physicians;
- our ability to obtain, maintain and expand regulatory clearances for our products and any new products we create;
- the expected growth of our business and our organization;
- our expected uses of the net proceeds from this offering;
- our expectations regarding government and third-party payer coverage and reimbursement;
- our ability to retain and recruit key personnel, including the continued development of a sales and marketing infrastructure;
- our ability to obtain an adequate supply of materials and components for our products from our third-party suppliers, most of whom are single-source suppliers;
- our ability to manufacture sufficient quantities of our products with sufficient quality;
- our ability to obtain and maintain intellectual property protection for our products;
- our ability to expand our business into new geographic markets;
- our compliance with extensive NASDAQ requirements and government laws, rules and regulations both in the United States and internationally;
- our estimates of our expenses, ongoing losses, future revenue, capital requirements and our need for, or ability to obtain, additional financing;
- our expectations regarding the time during which we will be an emerging growth company under the JOBS Act;
- our ability to identify and develop new and planned products and/or acquire new products; and
- developments and projections relating to our competitors or our industry.

We believe that it is important to communicate our future expectations to our investors. However, there may be events in the future that we are not able to accurately predict or control and that may cause our actual results to differ materially from the expectations we describe in our forward-looking statements. These forward-looking statements are based on management's current expectations, estimates, forecasts and projections about our business and the industry in which we operate and management's beliefs and assumptions and are not guarantees of future performance or development and involve known and unknown risks, uncertainties and other factors that are in some cases beyond our control. As a result, any or all of our forward-looking statements in this prospectus may turn out to be inaccurate. Factors that may cause actual results to differ materially from current expectations include, among other things, those listed under "Risk Factors" and elsewhere in this prospectus. Potential investors are urged to consider these factors carefully in evaluating the forward-looking statements.

These forward-looking statements speak only as of the date of this prospectus. We assume no obligation to update or revise these forward-looking statements for any reason, even if new information becomes available in the future. You should not rely upon forward-looking statements as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance or events and circumstances reflected in the forward-looking statements will be achieved or occur. We undertake no obligation to update publicly any forward-looking statements for any reason after the date of this prospectus to conform these statements to actual results or to changes in our expectations.

You should read this prospectus and the documents that we reference in this prospectus and have filed with the SEC as exhibits to the registration statement of which this prospectus is a part with the understanding that our actual future results, levels of activity, performance and events and circumstances may be materially different from what we expect.

MARKET, INDUSTRY AND OTHER DATA

This prospectus contains estimates and information concerning our industry, including market size and growth rates of the markets in which we participate, that are based on industry publications and reports. We relied on industry, market data, peer reviewed journals, formal presentations at medical society meetings and other sources, including a report from Modus Health. We also rely on our own research and estimates in this prospectus. This information involves a number of assumptions and limitations, and you are cautioned not to give undue weight to these estimates. We have not independently verified the accuracy or completeness of the data contained in these industry publications and reports. We also rely on independent third party sources for procedure data in the United States, as well as publicly available data.

Information that is based on estimates, forecasts, projections, market research or similar methodologies is inherently subject to uncertainties and actual events or circumstances may differ materially from events and circumstances that are assumed in this information, including those described in “Risk Factors.” These and other factors could cause results to differ materially from those expressed in these publications and reports.

DIVIDEND POLICY

We have never declared or paid, and do not anticipate declaring or paying, any cash dividends on any of our capital stock. We do not anticipate paying any dividends in the foreseeable future, and we currently intend to retain all available funds and any future earnings for use in the operation of our business, to finance the growth and development of our business and for future repayment of debt. Future determinations as to the declaration and payment of dividends, if any, will be at the discretion of our board of directors and will depend on then-existing conditions, including our operating results, financial condition, contractual restrictions, capital requirements, business prospects and other factors our board of directors may deem relevant. In addition, our term loan agreement limits our ability to pay dividends or make other distributions or payments on account of our common stock, in each case subject to certain exceptions.

USE OF PROCEEDS

We estimate that the net proceeds to us from this offering will be approximately $ million, assuming an initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. We will not receive any net proceeds from the sale of shares of common stock by the selling stockholders if the underwriters exercise their option to purchase additional shares, which are expected to be approximately $ million if such option is exercised in full. A $1.00 increase (decrease) in the assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) the net proceeds to us from this offering by approximately $ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same, and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. We may also increase or decrease the number of shares we are offering. An increase (decrease) of 1.0 million shares in the number of shares of common stock offered would increase (decrease) the net proceeds from this offering by approximately $ million, assuming the initial public offering price remains the same and after deducting the underwriting discounts and commissions and estimated offering expenses.

The principal purpose of this offering is to provide us with additional capital. We intend to use the net proceeds from this offering to expand our sales force and operations, increase our research and development activities, conduct or sponsor clinical studies and trials, expand internationally, and provide for working capital and other general corporate purposes. We may use a portion of the net proceeds to acquire complementary products, technologies, intellectual property or businesses; however, we currently do not have any agreements or commitments to complete any such transactions and are not involved in negotiations regarding such transactions.

As of the date of this prospectus, we cannot specify with certainty the specific allocations or all of the particular uses for the net proceeds to be received upon the completion of this offering. Accordingly, our management and board of directors will have broad discretion in the application and specific allocations of the net proceeds, and investors will be relying on the judgment of our management and board of directors regarding the application of the proceeds of this offering.

These expected uses represent our current intentions based upon our present plans and market conditions. The amounts we actually expend in these areas, and the timing thereof, may vary significantly from our current intentions and will depend upon a number of factors, including future sales growth, success of research and product development efforts, cash generated from future operations and actual expenses to operate our business.

Pending our use of the net proceeds from this offering, we intend to invest the net proceeds in short-term, investment grade, interest bearing instruments, money market funds, certificates of deposit, commercial paper and U.S. government securities.

CAPITALIZATION

The following table sets forth our cash and cash equivalents and capitalization as of December 31, 2018 on:

- an actual basis;
- a pro forma basis, giving effect to (i) the conversion of all of our outstanding shares of our convertible preferred stock into shares of our common stock, (ii) the exercise of outstanding warrants to purchase shares of convertible preferred stock into shares of common stock and the related reclassification of our convertible preferred stock warrant liability to stockholders' equity (deficit); and (iii) the filing and effectiveness of our amended and restated certificate of incorporation, in each case, immediately upon completion of this offering; and
- a pro forma as adjusted basis, giving effect to (i) the pro forma adjustments set forth above and (ii) the sale and issuance of shares of common stock by us in this offering, based upon the assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

You should read this table together with the section of this prospectus entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and related notes thereto included elsewhere in this prospectus.

	As of December 31, 2018		
(in thousands, except share data)	**Actual**	**Pro Forma**	**Pro Forma As Adjusted**
		(unaudited)	
Cash and cash equivalents	$	$	$
Long-term debt			
Convertible preferred stock warrant liability			
Convertible preferred stock issuable in series, $0.001 par value; 64,987,964 shares authorized, 57,329,696 shares issued and outstanding, actual; no shares authorized, issued and outstanding, pro forma and pro forma as adjusted			
Stockholders' equity (deficit):			
Preferred stock, $0.001 par value; no shares authorized, issued and outstanding, actual; shares authorized, no shares issued and outstanding, pro forma and pro forma as adjusted			
Common stock, $0.001 par value; 80,673,895 shares authorized, shares issued and outstanding, actual; shares authorized pro forma and pro forma as adjusted, shares issued and outstanding, pro forma; and shares issued and outstanding, pro forma as adjusted			
Additional paid-in capital			
Accumulated deficit			
Total stockholders' equity (deficit)			
Total capitalization	$	$	$

A $1.00 increase (decrease) in the assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) the pro forma as adjusted amount of each of additional paid-in capital, total stockholders' equity and total capitalization by $ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same, and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, an increase (decrease) of 1.0 million shares in the number of shares of common stock offered would increase (decrease) each of additional paid-in capital, total stockholders' equity and total capitalization by $ million, assuming the initial public offering price remains the same, and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

The number of shares of common stock that will be outstanding after this offering is based on shares of common stock outstanding, assuming the conversion of all of our outstanding shares of convertible preferred stock and the exercise of outstanding warrants to purchase shares of convertible preferred stock, in each case into common stock upon completion of this offering, as of December 31, 2018 and excludes:

- shares of our common stock issuable upon the exercise of options to purchase shares of our common stock outstanding as of December 31, 2018, with a weighted-average exercise price of $ per share;
- shares of our common stock issuable upon the exercise of options to purchase shares of our common stock granted after December 31, 2018, with a weighted-average exercise price of $ per share; and
- shares of common stock reserved for future grants under our stock-based compensation plans, consisting of:
  - shares of common stock reserved for future grants under our 2007 Stock Plan, which shares will be added to the shares to be reserved under our 2019 Equity Incentive Plan, which will become effective immediately prior to the effective date of this registration statement;
  - shares of common stock reserved for future grants under our 2019 Equity Incentive Plan, which will become effective immediately prior to the effective date of this registration statement; and
  - shares of common stock reserved for future issuance under our 2019 Employee Stock Purchase Plan, which will become effective immediately prior to the effective date of this registration statement.

DILUTION

If you invest in our common stock in this offering, your interest will be diluted to the extent of the difference between the initial public offering price per share of our common stock in this offering and the pro forma as adjusted net tangible book value per share of our common stock immediately after this offering.

As of December 31, 2018, our historical net tangible book value (deficit) was $ million, or $ per share of common stock. Historical net tangible book value (deficit) per share represents our total tangible assets less total liabilities, less convertible preferred stock, divided by the number of our shares of common stock outstanding as of December 31, 2018.

As of December 31, 2018, our pro forma net tangible book value (deficit) was $ million, or $ per share of common stock. Pro forma net tangible book value before the issuance and sale of shares in this offering represents the amount of our total tangible assets reduced by the amount of our total liabilities and divided by the total number of shares of our common stock outstanding as of December 31, 2018, assuming the conversion of all of our outstanding shares of convertible preferred stock into shares of our common stock, the exercise of outstanding warrants to purchase shares of convertible preferred stock into shares of common stock and the related reclassification of our convertible preferred stock warrant liability to stockholders' equity (deficit), in each case, immediately upon completion of this offering.

After giving further effect to the sale of shares of our common stock in this offering at the assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting underwriting discounts and commissions and estimated offering expenses payable by us, our pro forma as adjusted net tangible book value as of December 31, 2018 would have been $ million, or $ per share. This amount represents an immediate increase in pro forma as adjusted net tangible book value of $ per share to our existing stockholders and an immediate dilution of $ per share to investors purchasing shares in this offering. We determine dilution by subtracting the pro forma as adjusted net tangible book value per share after this offering from the amount of cash that a new investor paid for a share of common stock.

The following table illustrates this dilution:

Initial public offering price per share		$
Net tangible book value per share as of December 31, 2018	$	
Increase in pro forma net tangible book value per share	$	
Pro forma net tangible book value per share as of December 31, 2018	$	
Increase in pro forma net tangible book value per share attributable to new investors in this offering	$	
Pro forma net tangible book value per share after this offering		$
Dilution per share to new investors in this offering		$

The dilution information discussed above is illustrative only and may change based on the actual initial public offering price and other terms of this offering. A $1.00 increase (decrease) in the assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) our pro forma as adjusted net tangible book value by approximately $ per share and the dilution per share to new investors in this offering by $ per share, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

Similarly, an increase (decrease) of 1.0 million in the number of shares of common stock offered would increase (decrease) our pro forma as adjusted net tangible book value by $ per share and the dilution per share to new investors in this offering by $ per share, assuming the initial public offering price remains the same, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

The following table summarizes, as of December 31, 2018, on a pro forma as-adjusted basis as described above, the difference between existing stockholders and new investors with respect to the number of shares of common stock purchased from us, the total consideration paid to us, and the average price per share paid, before deducting underwriting discounts and commissions and estimated offering expenses:

	Shares Purchased		Total Consideration		Average Price Per Share
	Number	Percent	Amount	Percent	
Existing stockholders		%		%	$
New investors		%		%	
Total		%		%	

A $1.00 increase (decrease) in the assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) total consideration paid by new investors and total consideration paid by all stockholders by $ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

Except as otherwise indicated, the above discussion and tables assume no exercise of the underwriters' option to purchase additional shares of common stock from the selling stockholders. If the underwriters exercise their option to purchase additional shares in full, our existing stockholders would own % and our new investors would own % of the total number of shares of common stock outstanding upon the completion of this offering.

The number of shares of common stock that will be outstanding after this offering is based on shares of common stock outstanding, assuming the conversion of all of our outstanding shares of convertible preferred stock and the exercise of outstanding warrants to purchase shares of convertible preferred stock, in each case into common stock upon completion of this offering, as of December 31, 2018 and excludes

- shares of our common stock issuable upon the exercise of options to purchase shares of our common stock outstanding as of December 31, 2018, with a weighted-average exercise price of $ per share;
- shares of our common stock issuable upon the exercise of options to purchase shares of our common stock granted after December 31, 2018, with an exercise price of $ per share; and
- shares of common stock reserved for future grants under our stock-based compensation plans, consisting of:
  - shares of common stock reserved for future grants under our 2007 Stock Plan, which shares will be added to the shares to be reserved under our 2019 Equity Incentive Plan, which will become effective immediately prior to the effective date of this registration statement;

- shares of common stock reserved for future grants under our 2019 Equity Incentive Plan, which will become effective immediately prior to the effective date of this registration statement; and
- shares of common stock reserved for future issuance under our 2019 Employee Stock Purchase Plan, which will become effective immediately prior to the effective date of this registration statement.

To the extent that any outstanding options to purchase shares of our common stock are exercised or new awards are granted under our equity compensation plans, there will be further dilution to investors participating in this offering.

SELECTED CONSOLIDATED FINANCIAL DATA

We derived the selected consolidated statements of operations data for the years ended December 31, 2017 and December 31, 2018, and the consolidated balance sheet data as of December 31, 2017 and December 31, 2018, from our audited consolidated financial statements appearing elsewhere in this prospectus. You should read this data together with our consolidated financial statements and related notes thereto included elsewhere in this prospectus and the information under the caption "Management's Discussion and Analysis of Financial Condition and Results of Operations." The selected consolidated financial data included in this section are not intended to replace the consolidated financial statements and related notes thereto included elsewhere in this prospectus and are qualified in their entirety by the consolidated financial statements and related notes thereto included elsewhere in this prospectus. Our historical results are not necessarily indicative of our future results.

Consolidated Statements of Operations Data:

	Years Ended December 31,	
(in thousands, except share and per share data)	**2017**	**2018**
Revenue	$ 14,258	$
Cost of goods sold	5,129	
Gross profit	9,129	
Operating expenses:		
Research and development	7,242	
Selling, general and administrative	20,261	
Total operating expenses	27,503	
Loss from operations	(18,374)	
Interest income (expense), net	(3,909)	
Other income (expense), net	2,927	
Net loss	(19,356)	
Net loss attributable to non-controlling interest	—	
Net loss attributable to Silk Road Medical, Inc. common stockholders	$ (19,356)	$
Net loss per share, basic and diluted	$ 16.51	$
Weighted average common shares used to compute net loss per share, basic and diluted	1,172,307	
Pro forma net loss per share, basic and diluted (unaudited)		
Weighted average common shares used to compute pro forma net loss per share, basic and diluted (unaudited)		

Consolidated Balance Sheet Data:

(in thousands)	As of December 31, 2017	2018
Cash and cash equivalents	$ 33,331	$
Working capital	37,419	
Total assets	43,086	
Long-term debt	27,589	
Convertible preferred stock warrant liability	4,185	
Convertible preferred stock	105,235	
Accumulated deficit	(101,556)	
Total stockholders' equity (deficit)	(98,578)	

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read the following discussion and analysis of our financial condition and results of operations together with the section entitled "Selected consolidated financial data" and our consolidated financial statements and related notes thereto included elsewhere in this prospectus. This discussion and other parts of this prospectus contain forward-looking statements that involve risks and uncertainties, such as statements of our plans, objectives, expectations and intentions, that are based on the beliefs of our management, as well as assumptions made by, and information currently available to, our management. Our actual results could differ materially from those discussed in these forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in the section of this prospectus entitled "Risk factors."

Overview

We are a medical device company focused on reducing the risk of stroke and its devastating impact. We believe a key to stroke prevention is minimally-invasive and technologically advanced intervention to safely and effectively treat carotid artery disease, one of the leading causes of stroke. We have pioneered a new approach for the treatment of carotid artery disease called transcarotid artery revascularization, or TCAR, which we seek to establish as the standard of care. We manufacture and sell in the United States our portfolio of TCAR products, which are designed to provide direct access to the carotid artery, effective reduction in stroke risk throughout the procedure, and long-term restraint of carotid plaque.

We began commercializing our products in the United States in late 2015. Our products are currently the only devices cleared and approved by the FDA specifically for transcarotid use. While our current commercial focus is on the U.S. market, our products have obtained CE Mark approval, allowing us to commercialize in Europe in the future. We also intend to pursue regulatory clearances in China, Japan, and select other international markets. TCAR is reimbursed based on established current procedural technology, or CPT codes, and International Classification of Diseases, or ICD-10, codes related to carotid stenting that track to Medicare Severity Diagnosis Related Group, or MS-DRG, classifications.

We designed our commercial strategy and built our direct sales force with a particular focus on vascular surgery practices. Vascular surgeons are skilled in endovascular procedures, and our sales and marketing efforts are focused on driving adoption and supporting their practice development by offering them an innovative, safe, effective and minimally-invasive alternative for treating carotid artery disease. We also market to other specialists with experience in CEA or CAS with the appropriate skill set for TCAR, including neurosurgeons, cardiothoracic surgeons and non-surgical interventionalists in radiology, neuroradiology and cardiology. We also work on developing strong relationships with physicians and hospitals that we have identified as key opinion leaders. We consider the hospitals and medical centers where the procedure is performed to be our customers, as they typically are responsible for purchasing our products. Our direct sales organization consists of 26 sales representatives and 41 clinical support specialists.

We manufacture and distribute the ENROUTE NPS at our facility in Sunnyvale, California, using components and sub-assemblies manufactured both in-house and by third party manufacturers and suppliers. We purchase our other products from third-party contract manufacturers, including our transcarotid access kit, guidewires and stents. Many of these third-party manufacturers and outside vendors are currently single-source suppliers. We expect that our existing manufacturing facility will be sufficient to meet our anticipated growth through at least the next four years.

To date, our primary sources of capital have been private placements of preferred stock, debt financing arrangements and revenue from sales of our products. Since inception, we have raised a total

of $105.2 million in net proceeds from private placements of preferred stock. As of December 31, 2017, we had cash and cash equivalents of $33.3 million, long-term debt of $27.6 million and an accumulated deficit of $101.6 million. During the year ended December 31, 2017, we generated revenue of $14.3 million and our net loss was $19.4 million.

Key Business Metric - Number of U.S. TCAR procedures

We regularly review a number of operating and financial metrics, including the number of procedures performed in the United States, to evaluate our business, measure our performance, identify trends affecting our business, formulate our business plan and make strategic decisions. The following table lists the number of procedures performed in each of the three month periods as indicated:

	Three Months Ended						
	March 31, 2017	**June 30, 2017**	**Sept. 30, 2017**	**Dec. 31, 2017**	**March 31, 2018**	**June 30, 2018**	**Sept. 30, 2018**
Number of procedures	243	342	513	709	774	1,008	1,241

We define a procedure as any instance in which our ENROUTE NPS is used and for which we have a record that the procedure was performed. A procedure that is started and then aborted, or converted to a different procedure, after the ENTROUTE NPS is used would count as a procedure. The number of procedures is an indicator of our ability to drive adoption and generate sales revenue, and is helpful in tracking the progress of our business. We believe that it is representative of our current business; however, we anticipate this may be substituted for additional or different metrics as our business grows.

Components of our Results of Operations

Revenue

We currently derive all of our revenue from the sale of our portfolio of TCAR products to hospitals and medical centers in the United States. Our customers typically purchase an initial stocking order of our products and then reorder as needed. Each of our products is purchased individually, and the majority of our revenue is derived from sales of the ENROUTE NPS and ENROUTE stent. No single customer accounted for 10% or more of our revenue during the year ended December 31, 2017. We expect revenue to increase in absolute dollars as we expand our sales territories, new accounts and trained physician base and as physicians perform more TCAR procedures.

We expect our revenue to fluctuate from quarter-to-quarter due to a variety of factors, including seasonality. For example, in the first quarter, our results can be harmed by adverse weather and by resetting of annual patient healthcare insurance plan deductibles, both of which may cause patients to delay elective procedures. In the third quarter, the number of elective procedures nationwide is historically lower than other quarters throughout the year, which we believe is primarily attributable to the summer vacations of physicians and their patients, which results in fewer procedures.

Cost of Goods Sold and Gross Margin

We manufacture the ENROUTE NPS in California at our facility in Sunnyvale. We purchase our other products from third party manufacturers. Cost of goods sold consists primarily of costs related to materials, components and sub-assemblies, direct labor, manufacturing overhead, reserves for excess, obsolete and non-sellable inventories as well as distribution-related expenses. Overhead costs include the cost of quality assurance, material procurement, inventory control, facilities, equipment and operations supervision and management. Cost of goods sold also includes depreciation expense for production equipment and certain direct costs such as those incurred for shipping our products and royalties related to the sale of our ENROUTE stent. We expense all inventory provisions as cost of goods

sold. We record adjustments to our inventory valuation for estimated excess, obsolete and non-sellable inventories based on assumptions about future demand, past usage, changes to manufacturing processes and overall market conditions. We expect cost of goods sold to increase in absolute dollars to the extent more of our products are sold.

We calculate gross margin as gross profit divided by revenue. Our gross margin has been and will continue to be affected by a variety of factors, primarily average selling prices, product sales mix, production and ordering volumes, manufacturing costs, product yields, headcount and cost-reduction strategies. We expect our gross margin to increase over the long-term as our production and ordering volumes increase and as we spread the fixed portion of our overhead costs over a larger number of units produced. We intend to use our design, engineering and manufacturing know-how and capabilities to further advance and improve the efficiency of our manufacturing processes, which we believe will reduce costs and have a positive impact on our gross margin. Our gross margin could fluctuate from quarter to quarter as we introduce new products, and as we adopt new manufacturing processes and technologies.

Research and Development Expenses

Research and development, or R&D, expenses consist primarily of engineering, product development, clinical studies to develop and support our products, regulatory expenses, medical affairs, and other costs associated with products and technologies that are in development. These expenses include employee compensation, including stock-based compensation, supplies, consulting, prototyping, testing, materials, travel expenses, depreciation and an allocation of facility overhead expenses. Additionally, R&D expenses include costs associated with our clinical studies, including clinical trial design, clinical trial site initiation and study costs, data management, related travel expenses and the cost of products used for clinical trials, internal and external costs associated with our regulatory compliance and quality assurance functions, including the costs of outside consultants and contractors that assist in the process of submitting and maintaining regulatory filings, and overhead costs. We expect R&D expenses as a percentage of revenue to vary over time depending on the level and timing of our new product development efforts, as well as our clinical development, clinical trial and other related activities.

Selling, General and Administrative Expenses

Selling, general and administrative, or SG&A, expenses consist primarily of compensation for personnel, including stock-based compensation, related to selling and marketing functions, physician education programs, commercial operations and analytics, finance, information technology and human resource functions. Other SG&A expenses include sales commissions, training, travel expenses, promotional activities, marketing initiatives, market research and analysis, conferences and trade shows, professional services fees (including legal, audit and tax fees), insurance costs, general corporate expenses and allocated facilities-related expenses. We expect SG&A expenses to continue to increase in absolute dollars as we expand our infrastructure to both drive and support the anticipated growth in revenue and due to additional legal, accounting, insurance and other expenses associated with being a public company.

Interest Income (Expense), net

Interest income (expense), net consists primarily of interest incurred on our outstanding indebtedness and non-cash interest related to the amortization of debt discount and issuance costs associated with our term loan agreement. We may, at our election, pay the interest through a combination and the incurrence of additional indebtedness as payment-in-kind, or PIK.

Other Income (Expense), net

Other income (expense), net primarily consists of gains and losses resulting from the remeasurement of the fair value of our preferred stock warrant liability at each balance sheet date. We will continue to

record adjustments to the estimated fair value of the preferred stock warrants until they are exercised, which we expect to occur in connection with this offering. At that time, the final fair value of the warrant liability will be reclassified to stockholders' deficit and we will no longer record any related periodic fair value adjustments.

Results of Operations:

	Years Ended December 31,	
(in thousands)	**2017**	**2018**
Revenue	$ 14,258	$
Costs of goods sold	5,129	
Gross profit	9,129	
Operating expenses:		
Research and development	7,242	
Selling, general and administrative	20,261	
Total operating expenses	27,503	
Loss from operations	(18,374)	
Interest income (expense), net	(3,909)	
Other income (expense), net	2,927	
Net loss and comprehensive loss	$ (19,356)	$

Comparison of Years Ended December 31, 2017 and 2018

Revenue. Revenue increased $ million, or %, to $ million during the year ended December 31, 2018, compared to $14.3 million during the year ended December 31, 2017. The increase in revenue was attributable to an increase in the number of products sold as we expanded our sales territories, increased the number of new accounts and trained more physicians in TCAR.

Cost of Goods Sold and Gross Margin. Cost of goods sold increased $ million, or %, to $ million during the year ended December 31, 2018, compared to $5.1 million during the year ended December 31, 2017. This increase was attributable to the increase in the number of products sold and additional manufacturing overhead costs as we invested significantly in our operational infrastructure to support anticipated future growth. Gross margin for the year ended December 31, 2018 increased to %, compared to 64.0% in the year ended December 31, 2017.

Research and Development Expenses. R&D expenses increased $ million, or %, to $ million during the year ended December 31, 2018, compared to $7.2 million during the year ended December 31, 2017. The increase in R&D expenses was primarily attributable to an increase of $ million of personnel-related expenses and $ million of clinical trial expenses.

Selling, General and Administrative Expenses. SG&A expenses increased $ million, or %, to $ million during the year ended December 31, 2018, compared to $20.3 million during the year ended December 31, 2017. The increase in SG&A costs was primarily attributable to an increase of $ million in personnel-related expenses and an increase of $ million in physician training and travel related costs. Personnel-related expenses included stock-based compensation expense of $ million and $0.4 million for the years ended December 31, 2018 and 2017, respectively.

Interest Income (Expense), Net. Interest income (expense), net increased $ million, or %, to an expense of $ million during the year ended December 31, 2018, compared to an expense of $3.9 million during the year ended December 31, 2017. This increased expense was attributable to the

additional interest expense associated with the $5.0 million of additional borrowings in April 2017 and $15.0 million of additional borrowings in September 2018 under our term loan agreement. As of December 31, 2017 and 2018, the aggregate balance of outstanding principal balance (including interest paid-in-kind) under the term loan agreement was $27.6 million and $ million, respectively.

Other Income (Expense), Net. Other income (expense), net decreased to an expense of $ million during the year ended December 31, 2018, compared to income of $2.9 million during the year ended December 31, 2017. The decrease was primarily attributed to the remeasurement of our preferred stock warrants and recognition of the change in fair value.

Liquidity and Capital Resources

To date, our primary sources of capital have been private placements of preferred stock, debt financing agreements and revenue from the sale of our products. As of December 31, 2017, we had cash and cash equivalents of $33.3 million, an accumulated deficit of $101.6 million and $27.6 million outstanding under our term loan agreement. We believe our existing cash and cash equivalents, expected revenue and additional borrowings available under the term loan agreement, will be sufficient to meet our capital requirements and fund our operations through at least December 31, 2019. If these sources are insufficient to satisfy our liquidity requirements, we may seek to raise additional funds through future equity or debt financings. If we raise additional funds by issuing equity securities, our stockholders would experience dilution. Additional debt financing, if available, may involve covenants restricting our operations or our ability to incur additional debt. There can be no assurance that our efforts to procure additional financing will be successful or that, if they are successful, the terms and conditions of such financing will be favorable to us or our stockholders. If we are unable to raise additional financing when needed, we may be required to delay, reduce, or terminate the development, commercialization and marketing of our products and scale back our business and operations.

Cash Flows

The following table summarizes our cash flows for each of the years ended December 31:

	Years Ended December 31,	
(in thousands)	**2017**	**2018**
Net cash (used in) provided by:		
Operating activities	$ (25,251)	$
Investing activities	(754)	
Financing activities	47,156	
Net increase (decrease) in cash and cash equivalents	$ 21,151	$

Net Cash Used in Operating Activities

Net cash used in operating activities for the year ended December 31, 2018 was $ million, consisting primarily of a net loss of $ million and an increase in net operating assets of $ million, partially offset by non-cash charges of $ million. The increase in net operating assets was primarily due to an increase in accounts receivable and inventories to support the growth of our operations, partially offset by increases in accounts payable and accrued liabilities, due to timing of payments and growth of our operations. The non-cash charges primarily consisted of depreciation, stock-based compensation, non-cash interest expense and other charges related to our term loan agreement, offset by the change in fair value of the preferred stock warrants.

Net cash used in operating activities for the year ended December 31, 2017 was $25.3 million, consisting primarily of a net loss of $19.4 million and an increase in net operating assets of

$5.9 million. The increase in net operating assets was primarily due to an increase in accounts receivable and inventories to support the growth of our operations, partially offset by increases in accounts payable and accrued liabilities, due to timing of payments and growth of our operations. We also had non-cash charges, which consisted of depreciation, stock-based compensation, non-cash interest expense and other charges related to our term loan agreement, offset by the change in fair value of the preferred stock warrants.

Net Cash Used in Investing Activities

Net cash used in investing activities in the year ended December 31, 2018 was $ million consisting of purchases of property and equipment.

Net cash used in investing activities in the year ended December 31, 2017 was $0.8 million consisting of purchases of property and equipment of $0.5 million and a letter of credit in the amount of $0.3 million in relation to our new facility lease.

Net Cash Provided by Financing Activities

Net cash provided by financing activities in the year ended December 31, 2018 of $ million primarily relates to proceeds of $15.0 million from additional borrowings under the term loan agreement, and $ million proceeds from the exercise of stock options.

Net cash provided by financing activities in the year ended December 31, 2017 of $47.2 million primarily relates to net proceeds of $41.8 million from the issuance of our Series C preferred stock, proceeds of $5.0 million from additional borrowings under the term loan agreement, and $0.3 million proceeds from the exercise of stock options.

Term Loan Agreement

In October 2015, we entered into the term loan agreement and related security agreement with CRG, providing for a term loan facility of up to $30.0 million, available in tranches on the terms and conditions set forth in the term loan agreement. In September 2018, we entered into a fifth amendment to the term loan agreement, or Fifth Amendment, to increase the aggregate term loan commitments from up to $30.0 million to up to $55.0 million, to extend the commitment period from March 29, 2017 to June 30, 2019, to extend the maturity date from September 30, 2021 to December 31, 2022, and to amend certain other terms.

As of December 31, 2017, the aggregate outstanding principal balance (including interest paid-in-kind) under the term loan agreement was $27.6 million.

Prior to the Fifth Amendment, the term loans bore interest at a rate of 13.0% per annum, which interest rate was reduced to 10.75% on and after the effective date of the Fifth Amendment, and which interest rate would be further reduced to 10.00% on and after the consummation of a qualified initial public offering. We may, at our election, pay the interest through a combination of cash and PIK. The interest is payable in cash and PIK as follows: prior to the Fifth Amendment, 8.50% per annum in cash and 4.50% PIK; on or after the Fifth Amendment, 8.0% per annum in cash and 2.75% PIK; and on and after the consummation of a qualified initial public offering, 8.0% per annum in cash and 2.0% PIK. Interest is due and payable quarterly in arrears. The outstanding principal amount under the term loan agreement, together with all accrued and unpaid interest, is due and payable on December 31, 2022. We may prepay the term loan agreement, in whole or in part, at any time. During 2017, we incurred $3.9 million in interest expense in connection with the term loan agreement. During 2017, we made cash interest payments of $2.1 million and issued $1.1 million in PIK interest for the year ended December 31, 2017.

Our obligations under the term loan agreement are guaranteed by our existing and future subsidiaries, subject to exceptions for certain foreign subsidiaries. Our obligations under the term loan agreement are secured by substantially all of our assets, including our material intellectual property, and the assets of our guarantor subsidiaries, subject to certain exceptions. There are currently no guarantor subsidiaries. Additionally, we and our subsidiaries are subject to customary affirmative and negative covenants, including covenants that limit or restrict the ability of us and our subsidiaries to, among other things, incur indebtedness, grant liens, merge or consolidate, make investments, dispose of assets, make acquisitions, pay dividends or make distributions, repurchase stock and enter into certain transactions with affiliates, in each case subject to certain exceptions. We are also required to maintain minimum liquidity that exceeds the greater of $3.0 million or the minimum cash balance required under any permitted accounts receivable credit facility. In addition, we must achieve minimum annual revenue of $15.0 million in 2018, $30.0 million in 2019 and $40.0 million in 2020. If we fail to satisfy the minimum annual revenue covenant in any measurement period, we can cure the resulting default by raising the revenue shortfall in additional equity or in subordinated debt within 90 days of such calendar year in which the shortfall occurred. As of the date of this prospectus, we were in compliance with all covenants under the term loan agreement.

The term loan agreement is subject to customary events of default that include, among other things, non-payment defaults, inaccuracy of representations and warranties, covenant defaults, cross-defaults to material indebtedness and material agreements, bankruptcy and insolvency defaults, material judgment defaults, ERISA defaults, a change of control default and a material adverse change default. The occurrence of an event of default could result in the acceleration of the obligations under the term loan agreement. Under certain circumstances, a default interest rate will apply on all obligations during the existence of an event of default at a per annum rate equal to 4.0% above the applicable interest rate. On November 14, 2018, we entered into a sixth amendment to the term loan agreement to amend a covenant regarding the timeline for production of audited financial statements.

Cordis License Agreement

In December 2010, we entered into a license agreement, or the Cordis License Agreement, with Cordis Corporation, or Cordis, which is now a subsidiary of Cardinal Health. Pursuant to the Cordis License Agreement, Cordis has granted us a worldwide, non-exclusive, royalty-bearing license to certain of its intellectual property related to the PRECISE® carotid stent, or the Licensed IP, for transcervical treatment of carotid artery disease with an intravascular stent for certain applications for accessing blood vessels through the neck and cervical area. Cordis may not license the Licensed IP in our licensed field of use to any other third party during the term of the Cordis License Agreement.

We have paid Cordis a one-time license execution fee and are obligated to pay royalties to Cordis on a calendar quarter basis during the term of the Cordis License Agreement, calculated based on net sales of the licensed products we sell during the preceding quarterly period. The license granted under Cordis License Agreement shall remain in full force and effect on a country by country basis until the last to expire of the Licensed IP in such country.

The Cordis License Agreement requires us to work exclusively with either Cordis or Confluent Medical Technologies, Inc. (f/k/a Nitinol Devices and Components, Inc.), or Confluent, for the development, manufacture and supply of the licensed products. If either Cordis or Confluent cannot continue to manufacture or supply the licensed products, we can seek a third party manufacturer with the prior written consent of Cordis.

We have the right to assign or transfer the Cordis License Agreement to an entity that succeeds all or substantially all of our equity or assets. The Cordis License Agreement may be terminated by either party in the event of uncured material breach by the other party that remains uncured for 60 days (or 30 days for payment related breaches), or bankruptcy of the other party.

Cordis Supply Agreement

In October 2011, we entered into a supply agreement, or Cordis Supply Agreement, with Cordis and have since entered into four amendments in March and July 2012, April 2013 and April 2018. Pursuant to the Cordis Supply Agreement, Cordis has assisted in the development of a transcarotid stent delivery system according to our specifications with a PRECISE® carotid stent implant, or ENROUTE stent, has supplied the ENROUTE stent through preclinical and clinical trials, and continues to supply the ENROUTE stent for our commercial sale. The Cordis Supply Agreement will continue in full force and effect until the earlier to occur of (i) termination of the Cordis License Agreement; (ii) our election if and when Cordis approves another manufacturer; (iii) mutual written termination; or (iv) termination pursuant to the terms therein. The Cordis Supply Agreement may be terminated by either party in the event of uncured material breach by the other party that remains uncured for 30 days, or bankruptcy of the other party.

We are obligated under the Cordis Supply Agreement to purchase a minimum volume of the ENROUTE stent annually. This obligation is binding until the natural expiration of the Cordis License Agreement, due to expiration of the last-to-expire of the Licensed IP, if the Cordis License Agreement remains in effect through such natural expiration.

Cordis has the exclusive right to manufacture and supply the ENROUTE stent during the term of the Cordis Supply Agreement. However, if Cordis is not able to supply the ENROUTE stent, upon our election, Cordis shall permit Confluent or a third party manufacturer to provide supply of the ENROUTE stent, provided that Cordis retains the right to manufacture and supply the ENROUTE stent to us to the extent it is able to do so. Notwithstanding the foregoing, we, without Cordis' consent, may work directly with Confluent for the development and supply of next-generation products that materially expand or change the specification of the ENROUTE stent.

Lease Agreements

We currently lease our headquarters in Sunnyvale, California pursuant to a lease agreement which terminates in October 2024. We have an additional option to extend the lease term for a period of five years. The option must be exercised no more than 12 months and no less than nine months prior to the expiration of the applicable term. The facility lease is for approximately 31,000 square feet.

Off-Balance Sheet Arrangements

We currently have no off-balance sheet arrangements, such as structured finance, special purpose entities, or variable interest entities.

Contractual Obligations and Commitments

Our principal obligations consist of the operating lease for our facility, our term loan agreement and non-cancellable inventory purchase commitments. The following table sets out, as of December 31, 2017, our contractual obligations due by period:

	Payments Due by Period				
(in thousands)	Less Than 1 Year	1-3 Years	3-5 Years	More Than 5 Years	Total
Operating lease obligations	$ 635	$ 1,950	$ 2,038	$ 1,920	$ 6,543
Term loan agreement with CRG	2,391	23,975	11,797	—	38,163
Non-cancellable purchase commitments	9,034	—	—	—	9,034
	$ 12,060	$ 25,925	$ 13,835	$ 1,920	$ 53,740

In August 2018, in connection with our new facility lease, we elected to fully utilize the leasehold improvements financing option of $0.3 million. The amount financed was added to our minimum lease commitments as of the commencement date and includes interest at a rate of 7.0% per annum.

In September 2018, we drew down an additional $15.0 million of borrowings under the term loan agreement.

The non-cancellable purchase commitments consist of ENROUTE stents and other inventory components.

Our contractual obligations have not otherwise significantly changed from December 31, 2017.

Critical Accounting Policies and Estimates

Management's discussion and analysis of our financial condition and results of operations is based on our financial statements, which have been prepared in accordance with U.S. generally accepted accounting principles. The preparation of these financial statements requires us to make estimates and assumptions for the reported amounts of assets, liabilities, revenue, expenses and related disclosures. Our estimates are based on our historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions and any such differences may be material.

While our significant accounting policies are more fully described in Note 2 of our consolidated financial statements included in this prospectus, we believe the following discussion addresses our most critical accounting policies, which are those that are most important to our financial condition and results of operations and require our most difficult, subjective and complex judgments.

Revenue Recognition

We recognize revenue when the following criteria are met:

- Persuasive evidence of an arrangement exists. We consider this criterion satisfied when we have an agreement or contract in place with the customer;
- The fee is fixed or determinable and collectability is reasonably assured. We determine the satisfaction of these criteria based on our judgment regarding the nature of the fee charged for products, contractual agreements entered into, and the collectability of those fees under any contract or agreement; and
- Delivery has occurred or services have been rendered.

We must make significant assumptions regarding the future collectability of accounts receivable from customers to determine whether revenue recognition criteria have been met. If collectability is not assured at the time of shipment, we defer revenue until such criterion has been met. We estimate reductions in revenue for potential returns of products by customers. In making such estimates, we analyze historical returns, current economic trends and changes in customer demand and acceptance of our products.

Inventories

Inventories, which includes material, labor and overhead costs, are stated at cost, determined on a first-in, first-out basis, and not in excess of net realizable value. We periodically assess inventory quantities in consideration of actual loss experience, projected future demand, and remaining shelf life to

determine whether provisions for impairment are required. Our policy is to write down inventory that has become obsolete, inventory that has a cost basis in excess of its expected net realizable value and inventory in excess of expected requirements based on future demand and as compared to remaining shelf life. The written down value of the inventory becomes its new cost basis. The estimate of excess quantities is subjective and primarily dependent on our estimates of future demand for a particular product. If the estimate of future demand is inaccurate based on actual sales, we may increase the write down for excess inventory for that component and record a charge to inventory impairment in the accompanying consolidated statements of operations and comprehensive loss.

Common Stock Valuation and Stock-Based Compensation

We maintain an equity incentive plan to provide long-term incentive for employees, consultants and members of our board of directors. The plan allows for the issuance of non-statutory and incentive stock options to employees and non-statutory stock options to consultants and non-employee directors.

We recognize compensation costs related to stock options granted to employees based on the estimated fair value of the awards on the date of grant, net of estimated forfeitures. We estimate the grant date fair value, and the resulting stock-based compensation expense, using the Black-Scholes option pricing model. The grant date fair value of stock-based awards is expensed on a straight-line basis over the period during which the employee is required to provide service in exchange for the award, which is typically the vesting period.

We estimate the fair value of our stock-based awards using the Black-Scholes option-pricing model, which requires the input of highly subjective assumptions. Our assumptions are as follows:

Fair Value of Common Stock. As our common stock has never been publicly traded, the fair value of the shares of our common stock underlying the stock options has historically been determined by our board of directors after considering independent third-party valuation reports. Because there had previously been no public market for our common stock, our board of directors determined the fair value of our common stock at the time of grant of the option by considering a number of objective and subjective factors, including valuations of comparable companies, sales of our preferred stock, our operating and financial performance and the general and industry-specific economic outlook.

Expected Term. We do not believe we are able to rely on our historical exercise and post-vesting termination activity to provide accurate data for estimating the expected term for use in determining the fair value-based measurement of our options. Therefore, we have opted to use the “simplified method” for estimating the expected term of options, which is the average of the weighted average vesting period and contractual term of the option. The simplified method is based on the vesting period and the contractual term for each grant, or for each vesting-tranche for awards with graded vesting. The mid-point between the vesting date and the maximum contractual expiration date is used as the expected term under this method. For awards with multiple vesting-tranches, the times from grant until the mid-points for each of the tranches may be averaged to provide an overall expected term.

Expected Volatility. As our common stock has never been publicly traded, the expected volatility is derived from the average historical volatilities of publicly traded companies within our industry that we consider to be comparable to our business over a period approximately equal to the expected term for employees’ options and the remaining contractual life for nonemployees’ options. In evaluating similarity, we considered factors such as stage of development, risk profile, enterprise value and position within the life sciences industry.

Risk-free Interest Rate. The risk-free interest rate is based on the U.S. Treasury yield in effect at the time of the grant for zero-coupon U.S. Treasury notes with remaining terms similar to the expected term of the options.

Dividend Rate. We assumed the expected dividend to be zero as we have never paid dividends and have no current plans to do so.

In addition to the assumptions used in the Black-Scholes option-pricing model, we also estimated a forfeiture rate to calculate the stock-based compensation for our equity awards at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. Forfeitures were estimated based on management's expectation using historical forfeiture patterns. We will continue to use judgment in evaluating the expected volatility and expected terms utilized for our stock-based compensation calculations on a prospective basis. As we continue to accumulate additional data, we may have refinements to our assumptions, which could materially impact our future stock-based compensation expense. For performance-based stock options, we assess the probability of performance conditions being achieved in each reporting period. The amount of stock-based compensation expense recognized in any one period related to performance-based stock options can vary based on the achievement or anticipated achievement of the performance conditions.

We amortize all stock-based compensation on a straight-line basis over the requisite service period of the awards, which is generally the same as the vesting period of the awards.

Stock-based compensation expense for options granted to nonemployees as consideration for services received is measured on the date of performance at the fair value of the consideration received or the fair value of the equity instruments issued, using the Black-Scholes option-pricing model, whichever can be more reliably measured. Stock-based compensation expense for options granted to non-employees is periodically re-measured as the underlying options vest.

We expect to continue to grant stock options and other equity-based awards in the future, and to the extent that we do, our stock-based compensation expense recognized in future periods will likely increase.

Estimated fair value of convertible preferred stock warrants

We have issued freestanding warrants to purchase shares of convertible preferred stock in connection with the issuance of our convertible preferred stock. We account for these warrants as a liability in our financial statements because the underlying instrument into which the warrants are exercisable contains deemed liquidation provisions that are outside our control.

The warrants are recorded at fair value using an option pricing model based on an allocation of our aggregate value to the outstanding equity instruments, applying a discount to the warrant value for lack of marketability. The warrants are subject to remeasurement at each balance sheet date with any changes in fair value being recognized as a component of other income (expense), net in the statements of operations. We will continue to adjust the liability for changes in fair value until the earlier of (i) exercise or expiration of the warrants, or (ii) the completion of this offering or a change of control, at which time outstanding convertible preferred stock warrants will be exercised for shares of common stock and the related final fair value of the warrant liability will be reclassified to stockholders' deficit.

Quantitative and Qualitative Disclosures About Market Risk

Interest Rate Risk

The risk associated with fluctuating interest rates is primarily limited to our cash equivalents, which are carried at quoted market prices. Due to the short-term maturities and low risk profile of our cash equivalents, an immediate 100 basis point change in interest rates would not have a material effect on the fair value of our cash equivalents. We do not currently use or plan to use financial derivatives in our investment portfolio.

Credit Risk

As of December 31, 2017, our cash and cash equivalents was maintained with two financial institutions in the United States, and our current deposits are likely in excess of insured limits. We have reviewed the financial statements of these institutions and believe each to have sufficient assets and liquidity to conduct its operations in the ordinary course of business with little or no credit risk to us. Our cash equivalents are invested in highly rated money market funds.

Our accounts receivable primarily relate to revenue from the sale of our products to hospitals and medical centers in the United States. No customer represented 10% or more of our accounts receivable as of December 31, 2017.

Foreign Currency Risk

Our business is primarily conducted in U.S. dollars. Any transactions that may be conducted in foreign currencies are not expected to have a material effect on our results of operations, financial position or cash flows.

JOBS Act Accounting Election

As an emerging growth company under the Jumpstart Our Business Startups Act of 2012, we are eligible to take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies. We have irrevocably elected not to avail ourselves of the exemption from new or revised accounting standards and, therefore, are subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

Recently Issued Accounting Pronouncements

See Note 3 to our consolidated financial statements included elsewhere in this prospectus for new accounting pronouncements not yet adopted as of the date of this prospectus.

Related Parties

For a description of our related party transactions, see "Certain Relationships and Related Party Transactions."

Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed by, or under the supervision of, that company's principal executive and principal financial officers, or persons performing similar functions, and influenced by that company's board of directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements in accordance with generally accepted accounting principles. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with policies or procedures may deteriorate.

In connection with our preparation for this offering, we concluded that there were two material weaknesses in our internal control over financial reporting for the year ended December 31, 2017. A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis. The first material weakness identified was that we did not maintain a sufficient complement of resources with an appropriate level of

accounting knowledge, experience and training commensurate with our structure and financial reporting requirements. The second material weakness was that we did not appropriately design and implement controls over the review and approval of manual journal entries and the related supporting journal entry calculations.

During 2018 and in preparation for this offering, we initiated various remediation efforts, including increasing the depth and experience within our accounting and finance organization, as well as designing and implementing improved processes and internal controls. We have added and are continuing to add appropriate full-time resources to our finance team with public company and technical accounting experience to facilitate accurate and timely accounting closes, and to accurately prepare and review financial statements and related footnote disclosures. As a result of the additional resources added to the finance function, we are allowing for separate preparation and review of the reconciliations and other account analyses. In addition, these additional finance resources are allowing us to develop a more structured close process, including enhancing our existing policies and procedures, to improve the completeness, timeliness and accuracy of our financial reporting and disclosures including, but not limited to, those regarding proper financial statement classification and assessing more judgmental areas of accounting. The actions that have been taken are subject to continued review, supported by confirmation and testing by management, as well as audit committee oversight. As such remediation efforts are still ongoing, we have concluded that the material weakness has not been remediated. While we have implemented a plan to remediate these material weaknesses, we cannot provide any assurance that it will be successful, which could impair our ability to accurately and timely report our financial position, results of operations or cash flows.

BUSINESS

Overview

We are a medical device company focused on reducing the risk of stroke and its devastating impact. We believe a key to stroke prevention is minimally-invasive and technologically advanced intervention to safely and effectively treat carotid artery disease, one of the leading causes of stroke. We have pioneered a new approach for the treatment of carotid artery disease called transcarotid artery revascularization, or TCAR, which we seek to establish as the standard of care.

TCAR relies on two novel concepts - minimally-invasive direct carotid access in the neck and high-rate blood flow reversal during the procedure to protect the brain - and combines the benefits of innovative endovascular techniques with fundamental surgical principles. TCAR using our portfolio of products has been clinically demonstrated to reduce the upfront morbidity and mortality profile of current treatment alternatives while providing a reduction in long-term stroke risk. We are the first and only company to obtain FDA approvals, secure specific Medicare reimbursement coverage, and commercialize products engineered and indicated for use in TCAR. As of December 1, 2018, more than 7,200 TCAR procedures have been performed globally, including more than 4,300 in the last 12 months.

Carotid artery disease is the progressive buildup of plaque causing narrowing of the arteries in the front of the neck supplying blood flow to the brain. Plaque can embolize, or break away from the arterial wall, and travel toward the brain and interrupt critical blood supply, leading to an ischemic stroke. Carotid artery disease is one of the leading causes of stroke, and stroke is one of the most catastrophic, debilitating, and costly conditions worldwide. We believe the best way to mitigate the mortality, morbidity and cost burden of stroke is to prevent strokes in the first place. Clinical evidence has demonstrated that with proper diagnosis and treatment, stroke due to carotid artery disease is mostly preventable. We believe there are approximately 4.1 million people with carotid artery disease in the United States with an estimated 403,000 new diagnoses annually, and existing treatment options have substantial safety and effectiveness limitations.

The goal of treating carotid artery disease is to prevent a future stroke. Unfortunately, one of the main complications of existing treatments for carotid artery disease is causing a stroke, along with other procedure-related adverse events. When intervention beyond medical management is warranted, the current standard of care for reduction in stroke risk is an invasive carotid revascularization procedure called carotid endarterectomy, or CEA. To perform a CEA, a physician makes a large incision in the neck, cuts the carotid artery open, and then removes the plaque from inside the vessel. CEA was first performed in 1953, and while generally effective at reducing stroke risk in the long term, large randomized clinical trials have demonstrated that CEA is associated with an upfront risk of adverse events from the procedure, including cranial nerve injury, heart attack, wound complications and even stroke and death. These risks are elevated in certain patient populations.

To address the invasiveness of CEA, transfemoral carotid artery stenting, or CAS, was developed in the 1990s. The CAS procedure uses minimally-invasive catheters traveling from a puncture site in the groin to place a stent in the carotid artery in the neck to restrain the plaque and prevent embolization that could cause a stroke. While both CEA and CAS have been clinically demonstrated to reduce long-term stroke risk, randomized clinical trials and other studies have shown that CAS, relative to CEA, often results in an almost two-fold increase in stroke within 30 days, which we believe is due to inadequate protection of the brain. We believe this represents an unacceptable trade-off relative to the current standard of care of CEA. As such, after almost 30 years of development, CAS has achieved limited adoption and narrow reimbursement coverage in the United States. CEA remains the standard of care and represented approximately 82% of the 152,000 carotid revascularization procedures performed in the United States in 2017. Therefore, we believe solving for the morbidity and mortality of CEA is an unmet clinical need that continues to persist.

TCAR is a minimally-invasive solution that addresses the morbidity of CEA and the 30-day stroke risk of CAS while maintaining a reduction in long-term stroke risk beyond the first 30 days. TCAR starts with a small incision in the neck slightly above the collarbone, otherwise known as transcarotid access, through which our ENROUTE Transcarotid Stent System, or ENROUTE stent, is placed during a period of temporary high-rate blood flow reversal that is enabled by our ENROUTE Transcarotid Neuroprotection System, or ENROUTE NPS. Blood flow reversal directs embolic debris that could cause a stroke away from the brain, while the stent braces the plaque and prevents embolization to afford a reduction in long-term stoke risk. We believe that by meeting the standard of brain protection and reduction in 30-day and long-term stroke risk afforded by CEA, while providing benefits commensurate with an endovascular, minimally-invasive approach, TCAR will become the preferred alternative for carotid revascularization. Additionally, we believe that as our technology becomes more widely adopted, TCAR may become a compelling alternative for patients who are treated with medical management alone each year.

Based on the estimated 403,000 new carotid artery disease diagnoses that occur annually in the United States, we believe a total annual U.S. market opportunity of approximately $2.4 billion exists for our portfolio of TCAR products. We are currently focused on penetrating and converting the approximately 152,000 carotid revascularization procedures performed each year to TCAR, which we estimate to represent a market conversion opportunity greater than $0.9 billion. Approximately TCAR procedures were performed in the United States in 2018 using our products, representing approximately % of annual diagnoses of carotid artery disease in the United States.

The safety, effectiveness and clinical advantages of TCAR have been demonstrated in multiple clinical trials, post-market studies and registries that have evaluated outcomes in more than 3,500 patients in the United States and Europe to date. The results of our U.S. pivotal trial, ROADSTER, reflect the lowest reported 30-day stroke rate for any prospective, multicenter clinical trial of carotid stenting of which we are aware. Additionally, data on real-world outcomes of TCAR relative to CEA and CAS have continued to accrue through the ongoing TCAR Surveillance Project, which is an ongoing open-ended registry sponsored by the Society for Vascular Surgery through the Vascular Quality Initiative, or VQI. In a recent contemporaneous comparative analysis of this data, TCAR demonstrated comparable rates of in-hospital stroke and death relative to CEA despite treating a sicker, older patient population. TCAR patients had a ten-fold reduction in risk of cranial nerve injury, spent less time in the operating room and were less likely to have a hospital stay greater than one day. When compared to CAS, TCAR demonstrated significantly lower rates of in-hospital stroke and death.

We manufacture the ENROUTE NPS and distribute our portfolio of TCAR products from our facility in Sunnyvale, California. We market and sell our products in the United States through a direct sales organization consisting of 26 sales representatives and 41 clinical support specialists that are focused on driving adoption of TCAR among the approximately 2,800 physicians and 750 hospitals in the United States that we believe are responsible for over 80% of carotid revascularization procedures each year. While our current commercial focus is on the U.S. market, our ENROUTE NPS and ENROUTE stent have obtained CE Mark approval, allowing us to commercialize in Europe in the future. We are also pursuing regulatory clearances in China and Japan.

TCAR is reimbursed based on established current procedural technology, or CPT codes, and International Classification of Diseases, or ICD-10, codes related to carotid stenting that track to Medicare Severity Diagnosis Related Group, or MS-DRG classifications. In September 2016, the Centers for Medicare and Medicaid Services, or CMS, made coverage available for TCAR in symptomatic and asymptomatic patients at high risk for adverse events from CEA, or high surgical risk, treated at facilities participating in the Society for Vascular Surgery's TCAR Surveillance Project using FDA-cleared and approved transcarotid devices. Our ENROUTE NPS and stent are currently the only FDA-cleared and approved transcarotid devices. Carotid artery disease is most often a disease of the elderly and, as such, CMS is the primary payer for carotid revascularization procedures, and we estimate that the high surgical risk patient population represents approximately two-thirds of the treated patient population. We plan to pursue expansion of FDA labeling for the ENROUTE stent, currently indicated for use in high surgical risk

patients, and pursue CMS coverage for TCAR in the estimated one-third of treated patients who are deemed standard surgical risk.

We have experienced considerable growth since we began commercializing our products in the United States in late 2015. Our revenue increased from $14.3 million for the year ended December 31, 2017 to $ million for the year ended December 31, 2018, representing growth of %, and our net losses were $19.4 million and $ million for the years ended December 31, 2017 and December 31, 2018, respectively. Our accumulated deficit was $101.6 million as of December 31, 2017.

Our Competitive Strengths

We believe the continued growth of our company will be driven by the following competitive strengths:

- **Paradigm-shifting transcarotid access and flow reversal technologies.** TCAR is an entirely new, minimally-invasive procedure in a disease state that has been defined by a 65-year-old standard of care. TCAR combines two innovative concepts: minimally-invasive direct carotid access in the neck, and high-rate blood flow reversal to protect the brain. Our technology combines the benefits of innovative endovascular techniques with fundamental surgical principles. Our goal is to leverage our disruptive technology and growing body of clinical evidence to establish TCAR with our products as the standard of care for the treatment of carotid artery disease.

- **Compelling body of clinical and economic evidence.** The benefits of TCAR are supported by data from over 3,500 patients enrolled across several multi-center clinical trials, post market studies and real-world registries that support favorable patient outcomes and value-based care. In November 2015, the Journal of Vascular Surgery reported that TCAR demonstrated the lowest 30-day stroke rate of any prospective, multicenter carotid stent trial. Data from the Society for Vascular Surgery's TCAR Surveillance Project show that TCAR compares favorably to CEA and CAS with a low 30-day stroke risk and low procedure-related adverse events. TCAR has demonstrated shorter procedure times, a shorter length of hospital stay and reduced adverse event rates compared to the standard of care, CEA. For hospitals seeking to improve quality metrics, drive throughput and increase profitability, we believe TCAR results in higher efficiency and increased cost savings. In addition, by reducing the overall burden of stroke, TCAR is beneficial to payers. We believe our growing body of clinical evidence and favorable value proposition will continue to support increased adoption of TCAR.

- **Established reimbursement linked to our unique regulatory label.** TCAR is reimbursed under established codes and payment levels. CMS coverage for TCAR in high surgical risk patients treated at facilities participating in the Society for Vascular Surgery's TCAR Surveillance Project mandates the use of FDA-cleared transcarotid flow reversal neuroprotection devices and FDA-approved transcarotid stents. We are currently the only company to have obtained transcarotid FDA labeling, thereby offering the only transcarotid devices currently eligible for CMS reimbursement coverage through the Society for Vascular Surgery's TCAR Surveillance Project.

- **Procedure-focused approach to product innovation and service.** Our product portfolio was developed to support the technical aspects of TCAR and is currently the only suite of devices specifically designed for carotid access through the neck, or the transcarotid approach. Our research and development strategy strives to optimize safety, effectiveness and ease-of-use through a family of integrated products designed to minimize the learning curve and drive adoption by physicians. In addition, our commercial organization is clinically consultative and trained in many aspects of carotid artery disease treatment, from patient selection and pre-operative planning to procedural support and post-operative care. As a result, our commercial organization provides a level of service and support that we believe is valued by our physician customers and drives customer loyalty.

- **Strong relationships and engagement with key medical societies and governmental agencies.** We have developed strong working relationships with key groups including the FDA, CMS, and the Society for Vascular Surgery. By listening and responding to the needs of key stakeholders, we believe we have been able to achieve efficient regulatory approval timelines, coverage and alignment with key medical societies in the vascular field regarding the benefits of TCAR. We believe our approach to engaging these key stakeholders will continue to help drive our business success.

- **Broad intellectual property portfolio.** As of December 31, 2018, we held more than issued patents that include device, apparatus and method claims surrounding TCAR and our suite of current and potential future products, as well as for treating other vascular diseases and enabling other transcarotid procedures, primarily directed at acute ischemic stroke, other neurovascular procedures, repair of the aorta and transcatheter aortic valve repair, or TAVR. In addition, we believe that our trade secrets, including manufacturing know-how, provide additional barriers to entry.

- **Industry-experienced senior management team**. Our senior management team consists of seasoned medical device professionals with deep industry experience. Our team has successfully lead and managed dynamic growth phases in organizations and commercialized products in markets driven by converting open surgical procedures to endovascular alternatives and expanding access to new procedures for patients. Members of our team have worked with well-regarded medical technology companies such as Boston Scientific, Medtronic, Abbott, Johnson & Johnson, Stryker, Cardinal and Roche.

Our Market Opportunity

The Burden of Stroke

Stroke is a disease that affects the arteries leading to and within the brain. There are two key types of stroke: an ischemic stroke, which occurs when a blood vessel that carries oxygen and nutrients to the brain is blocked by a clot, and a hemorrhagic stroke, which occurs when one of these same blood vessels ruptures. If blood flow is stopped for more than a few seconds, the brain is deprived of oxygenated blood and brain cells can die. Depending on where in the brain the stroke occurs, the consequences of stroke can include difficulty talking, memory loss, cognitive issues, paralysis or loss of muscle movement, inability to attend to bodily needs or care, pain, emotional problems, and death.

Although stroke is often considered preventable, it remains one of the most catastrophic and common conditions worldwide. The American Heart Association, or AHA, estimated that the global prevalence of stroke was 42.4 million in 2015, with ischemic strokes representing approximately 87% of the total number of strokes in the U.S. and approximately two thirds of all strokes worldwide. According to a 2013 study published in the Neuroepidemiology journal, there are an estimated 6.9 million new or recurrent ischemic strokes globally each year. The AHA expects the incidence of stroke to more than double between 2010 and 2050 as demographic trends contribute to an increase in the prevalence of disease states that are commonly associated with strokes.

In the United States, stroke is a major contributor to long-term disability and mortality and disproportionately affects women, the elderly and certain ethnic populations. According to the AHA, stroke was the fifth leading cause of death in the United States in 2014, and results in the death of approximately 140,000 people each year. Stroke ranked in the top 10 most expensive conditions for Medicare, Medicaid, and private insurers in 2013, and according to the AHA, direct medical stroke-related costs will more than double in the United States, from $36.7 billion in 2015 to $94.3 billion in 2035.

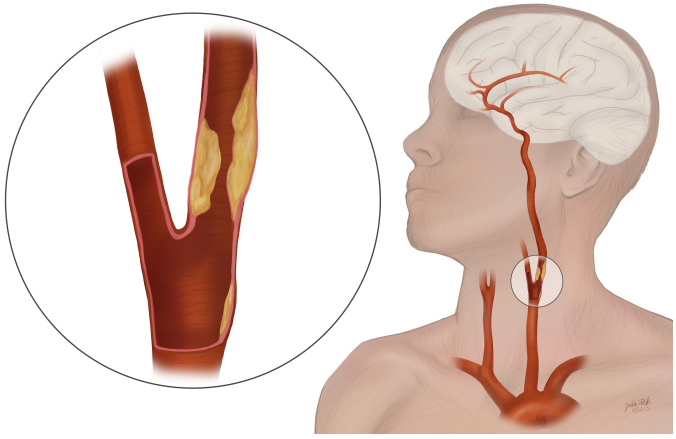
We believe the best way to mitigate the mortality, morbidity and cost burden of stroke is to prevent strokes in the first place. While strokes can be caused by a wide variety of conditions, the Society for Vascular Surgery estimates that carotid artery disease is the primary cause of up to one-third of strokes.

Based on AHA's estimated 690,000 ischemic strokes in the United States every year, carotid artery disease is the cause of up to 230,000 ischemic strokes annually. Clinical evidence has demonstrated that with proper diagnosis and treatment, stroke due to carotid artery disease is mostly preventable.

Overview of Carotid Artery Disease

Carotid artery disease, also known as carotid artery stenosis, is the narrowing of the carotid arteries that reside in the neck, one on each side, which are two of the four main blood vessels that supply oxygen to the brain. The narrowing of the carotid arteries is usually caused by atherosclerosis, which is the buildup of cholesterol, fat, calcium and other substances on the walls of arteries. Over time and as people age, an area of atherosclerotic plaque, also called a lesion, is formed. Plaque buildup can lead to narrowing or blockage in the carotid artery, often at the bifurcation of the common carotid and internal carotid arteries.

Carotid plaques in particular are often unstable or crumbly, and a piece of plaque or a blood clot, known as emboli, can break away from the wall of the carotid artery, travel through the bloodstream and get stuck in one of the brain's smaller arteries. When these arteries experience an interrupted or seriously reduced blood supply, the surrounding cells and tissue are deprived of oxygen leading to an ischemic stroke.



Diagnosis and Referral Pathways for Carotid Artery Disease

Based on data from Modus Health Group, carotid artery disease was prevalent in approximately 4.1 million people in the United States in 2017, which represents approximately 1.6% of the adult population in 2018, and prevalence increases with age. Unfortunately for many patients, carotid artery disease is frequently asymptomatic, or silent, and the first symptom is often a stroke. Each year, an estimated 403,000 patients in the United States are diagnosed with carotid artery disease severe enough to warrant treatment, either because they have been non-invasively screened for the disease or they have experienced symptoms ranging from a major or minor stroke to a transient ischemic attack, or TIA, in which neurologic symptoms resolve within 24 hours.

For asymptomatic patients, a primary care physician or a specialist such as a vascular surgeon or cardiologist may screen for carotid artery disease based on the presence of risk factors, including age, family history, history of smoking, high cholesterol, high blood pressure, obesity, diabetes or

atherosclerosis in other areas like the heart and legs. When a potential carotid stenosis is detected, the physician will typically refer the patient to a vascular laboratory for a non-invasive ultrasound to definitively diagnose the presence and degree of stenosis, or narrowing of the artery. The degree of stenosis is reported as a percentage of the vessel diameter. There is a correlation between higher degrees of stenosis and increased risk of stroke.

Symptomatic patients who have survived a stroke or experienced a TIA are typically referred to a neurologist for care and physiological assessment. If the patient is found to have underlying carotid artery stenosis, the neurologist will typically refer the patient to a vascular surgeon for urgent treatment to prevent a recurrent stroke. The majority of patients in the United States who are referred for a carotid revascularization procedure receive care from a vascular surgeon.

Once a patient is diagnosed with carotid artery disease, the treatment paradigm is influenced by the patient's symptom status, disease progression and degree of stenosis, as well as factors that may place them at higher risk of adverse events, including their age, anatomic characteristics, and co-morbidities such as cardiovascular and respiratory disease. Patients diagnosed with carotid artery disease are recommended for treatment with medical management, which includes pharmaceutical treatments and lifestyle modifications such as smoking cessation and control of diabetes, hypertension and lipid, or fatty acid, abnormalities. As the degree of stenosis increases, carotid revascularization procedures may also be prescribed. For example, published guidelines by the Society for Vascular Surgery recommend that symptomatic patients be treated with CEA if they present with carotid artery stenosis greater than or equal to 50%. For asymptomatic patients, the guidelines recommend CEA for stenosis greater than or equal to 60%, provided that the risk of stroke and death within 30 days of the procedure is below 3% and life expectancy is greater than three years. The risk of stroke and death within 30 days is subjective and typically depends on the patient's surgical risk factors as well as the skill and experience of the treating physician. The guidelines for CAS procedures are more limiting than those for CEA procedures due primarily to the increased stroke risk associated with CAS.

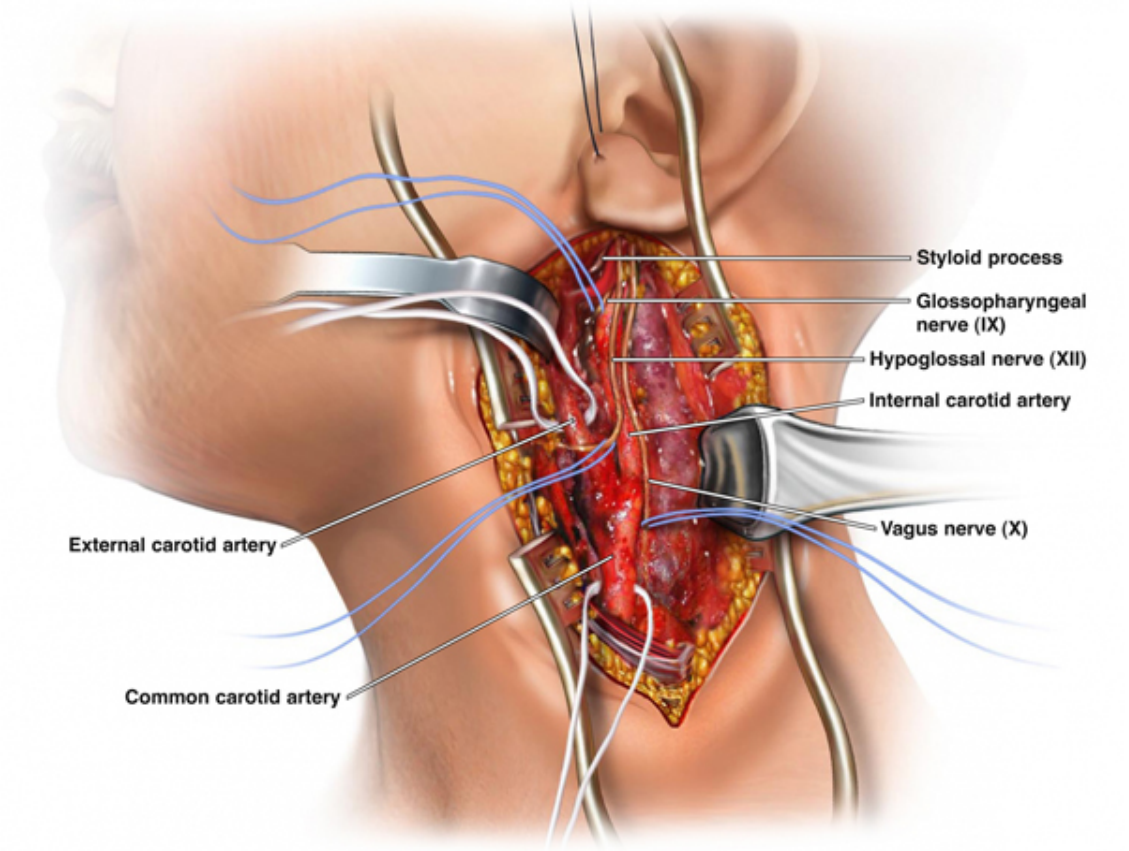
In the United States, of the estimated 4.1 million individuals with carotid artery disease and approximately 403,000 patients newly diagnosed each year, approximately 152,000 patients are treated with a revascularization procedure. The remaining patients are managed medically and monitored to assess the progression of stenosis and any new or recurrent neurologic symptoms.

Existing Alternatives for Carotid Revascularization and Their Limitations

Existing treatment options for carotid revascularization procedures include CEA and CAS. Both surgical removal of plaque with CEA and stenting of plaque with CAS have demonstrated clinical effectiveness in reducing long-term stroke risk, which is stroke occurring more than 30 days after the procedure. This has shown in multiple randomized trials across different surgical techniques and stent designs, including multi-year follow ups that, in some cases, extend out to 10 years. However, traditional methods of carotid revascularization, including CEA and CAS, have been associated with adverse events within 30 days.

Carotid Endarterectomy, or CEA

CEA, which was first performed in 1953, is an invasive surgical procedure, typically performed under general anesthesia. The procedure involves a ten- to fifteen-centimeter incision extending from the base of the neck towards the earlobe, followed by the meticulous dissection of multiple tissue and muscle layers to open and expose the internal, external and common carotid arteries, collectively known as the carotid bifurcation. During the surgical exposure of the carotid bifurcation, great care is required to avoid damaging the cranial nerves that travel in and around the carotid arteries and related veins. Damage to these nerves, which control functions like speaking, swallowing, facial sensation, taste and saliva production, is a potential side-effect of CEA and can result in transient and permanent quality of life issues and stroke-like symptoms.



Once the bifurcation is exposed, the carotid arteries are then clamped above and below the disease, temporarily halting blood flow to the brain from that artery, so that the artery can be cut open to remove the plaque. Due to the length of the surgery, a shunt is sometimes placed to allow blood flow to bypass the clamped arteries and reach the brain. After the plaque is removed, the artery is closed, and the vessels are unclamped to restore blood flow. The long incisional wound is then sutured closed, though the resulting scar presents a cosmetic disadvantage.

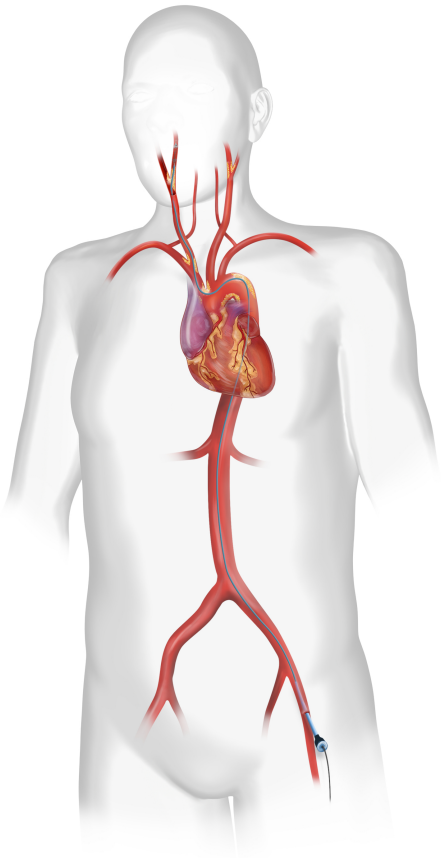
Data from large randomized clinical trials have demonstrated that CEA in addition to medical management is more effective at reducing long-term stroke risk than medical management alone, which has established CEA as the standard of care. Importantly, many of these trials primarily included standard surgical risk patients who were relatively young, free of co-morbidities and deemed reasonably able to withstand the stress of an invasive surgery.

Data from these trials and other studies, including real world registries, have indicated that the surgical impact from a large incision combined with factors such as procedure time, general anesthesia and patient-specific risk factors can result in known adverse events, including nerve injury, heart attack and even stroke and death. CEA also presents a risk of wound complications, including bleeding and infection, and leaves behind a significant scar. These adverse events can also lead to long hospital stays that are costly to providers and payers. Further, patient recovery times can be significant after a major vascular surgery like CEA.

Transfemoral Carotid Artery Stenting, or CAS

To address the invasiveness of CEA, in the 1990s physicians and medical device companies developed CAS, which uses minimally-invasive techniques to place a stent in the carotid artery. The first carotid stents were approved by the FDA in 2004 for high surgical risk patients, marking the beginning of the CAS market in the United States.

In a CAS procedure, a small puncture is made in the groin and a sheath is inserted through which a physician can navigate catheters. The physician navigates the catheters inside the body through approximately three feet of vessels and arteries of the leg, abdomen, chest and neck, up to and often beyond the lesion itself, in order to place a stent to brace the plaque and prevent it from embolizing. Significant technical skill is required to maneuver catheters through these vessels and their twists and turns. Patients may also have significant atherosclerotic disease along the navigation pathway, and the catheters can scrape the inner lining of the arteries and dislodge plaque and embolic debris, which can travel to the brain and cause neurologic injury or stroke during or after the procedure. While embolic protection devices, which are designed to capture debris dislodged during the procedure, may be used to reduce these risks, the brain is not protected while they are maneuvered into place, and they do not always safely capture all debris once in position.



While CAS is less invasive than CEA, multiple randomized clinical studies and real-world registries have consistently shown an almost two-fold increase in the risk of stroke within 30 days relative to CEA. CAS has also been clinically demonstrated to result in showers of microemboli to the brain, which can cause neurologic injuries including memory loss as well as cognitive decline and dementia while increasing the risk of future stroke. The procedure-related stroke risks are further elevated in elderly, female, symptomatic and other at-risk patients who tend to have smaller or more distended and diseased vessels. As a result, CAS is performed in a minority of carotid revascularization procedures, representing only 17% of the estimated 152,000 carotid procedures performed in the United States in 2017. By contrast, after multiple decades of technology innovation and clinical development, minimally-invasive endovascular procedures targeted at arterial diseases in the legs, abdomen, heart and brain have become the standard of care and represented approximately 70% to 85% of procedures in other areas of the vasculature in 2012 as compared to open surgical alternatives.

Major Trials Comparing CEA and CAS

The principal clinical trial evaluating CEA and CAS is the Stenting versus Endarterectomy for Treatment of Carotid-Artery Stenosis trial, known as CREST. CREST was a multi-center randomized controlled trial in the United States that compared CEA to CAS in symptomatic and asymptomatic patients deemed to be at standard risk for adverse events from CEA, or standard surgical risk. This trial, which by protocol excluded high surgical risk patients, was sponsored by the National Institutes of Health and is considered by many physicians to be the landmark trial comparing CEA and CAS. A number of other randomized controlled trials have further established the basis of comparison between CEA and CAS. In addition, post-market registries sponsored by the Society for Vascular Surgery have assessed CEA and CAS in real world practice. Results comparing CEA and CAS from the CREST trial and the Society for Vascular Surgery registry are shown in tables below. In our presentation of the results of the CREST trial, we have indicated incidence rates in percentage terms, regardless of sample size. Statistically significant differences are demonstrated by p-values of less than 0.05, which is the commonly accepted threshold for statistical significance. This follows the convention of standard clinical practice.

CREST Trial Results

			30-day Stroke		30-day Stroke/Death		4 Year Ipsilateral Stroke	
Patient Cohort			**Incidence**	**p-value**	**Incidence**	**p-value**	**Incidence**	**p-value**
All Patients	CEA	n=1,240	2.3%	0.01	2.3%	0.005	1.7%	
	CAS	n=1,262	4.1%		4.4%		1.6%	NR
Asymptomatic	CEA	n=587	1.4%	0.15	1.4%	0.15	0.9%	
	CAS	n=594	2.5%		2.5%		1.5%	NR
Symptomatic	CEA	n=653	3.2%	0.043	3.2%	0.019	2.5%	
	CAS	n=668	5.5%		6.0%		1.7%	NR
Male	CEA	n=823	2.4%	0.26	2.4%	0.13	1.3%	
	CAS	n=807	3.3%		3.7%		1.6%	NR
Female	CEA	n=417	2.2%	0.013	2.2%	0.013	2.4%	
	CAS	n=455	5.5%		5.5%		1.5%	NR
Age ≥75 years	CEA	n=353	3.1%	0.035	3.7%	NR	1.4%	
	CAS	n=333	6.9%		8.1%		3.0%	NR
Age <75 years	CEA	n=887	2.0%	NR	2.1%	NR	1.8%	
	CAS	n=929	3.1%		3.6%		1.1%	NR

NR - p-values not reported; rates are manually calculated from data presented in the respective publications.

While there was a statistically significant difference in 30-day stroke and 30-day stroke/death favoring CEA, CAS had a significantly lower rate of myocardial infarction of 1.1% compared to CEA at 2.3%, with a p-value equal to 0.03. We believe that this can be largely attributed to the more invasive nature of CEA.

In the FDA analysis of CREST which led to FDA approval of a carotid stent for use in standard surgical risk patients, the rate of acute cranial nerve injury was a secondary endpoint. Patients with an acute cranial nerve injury were evaluated again at the 6-month follow-up visit to determine if the injury persisted. As shown in the table below, patients randomized to the CEA arm had a statistically significant higher rate of acute cranial nerve injury, many of which persisted at the 6-month evaluation. Eighty percent of the cranial nerve injuries involved a motor deficit, such as difficulty swallowing.

Cranial Nerve Injury	**CEA**	**CAS**	**p-value**
	n=1,176	n=1,131	
Cranial Nerve Injury *(Acute)*	5.3%	0.0%	<0.0001
Cranial Nerve Injury *(Persisting at 6 months)*	2.1%	0.0%	<0.0001

In an analysis of patients who received their randomized treatment assignment without crossover, CEA procedure time was more than twice that of CAS. Additionally, CEA patients had a hospital length of stay of 3.0 days compared to 2.6 days for CAS patients. The difference in hospital length of stay was statistically significant.

Procedural Information	**CEA**	**CAS**	**p-value**
	n=1,193	n=1,213	
Mean procedure time (mins)	171	69	NR
Length of stay (days)	3.0	2.6	0.011

In a publication of the primary long-term endpoint of post-procedural ipsilateral stroke, or a stroke on the same side as the original carotid revascularization procedure, over the 10-year follow-up period, ipsilateral stroke occurred in 6.9% of CAS patients and 5.6% of CEA patients. The difference was not statistically significant. Furthermore, there was no statistical difference when outcomes were analyzed separately for symptomatic and asymptomatic patients. There was also no statistical difference between CAS and CEA at any other year of follow-up from year one through year nine. These data demonstrate that both CAS and CEA provide the same durable reduction of long-term stroke risk.

Society for Vascular Surgery Vascular Registry

In 2013, members of the Society for Vascular Surgery Vascular Registry, the precursor to the VQI, published outcomes for CEA and CAS in high surgical risk patients using CMS high risk criteria per the National Coverage Determination. The objective of the analysis was to determine objectively if the CMS high risk criteria demonstrated differential and biased outcomes in CEA and CAS due to the over-representation of high risk patients for CAS. The authors also sought to determine if the rate of adverse events in high risk patients is lower in CAS than CEA as the surgical high risk criteria would suggest. The primary endpoint was a composite of stroke, death and myocardial infarction at 30 days. In a risk adjusted analysis, CAS had a significantly higher rate of stroke, death and myocardial infarction compared to CEA. For the high risk cohort, the rates of stroke for CEA and CAS were 3.6% and 4.9%, respectively; the rates of stroke and death for CEA and CAS were 4.8% and 6.2%, respectively.

	CEA High Risk			CAS High Risk		
	Symptomatic	Asymptomatic	All	Symptomatic	Asymptomatic	All
	n=936	n=1,418	n=2,354	n=1,538	n=1,844	n=3,382
Stroke/death/myocardial infarction	7.3%	5.0%	5.9%	9.1%	5.4%	7.1%
Stroke/death	6.4%	3.7%	4.8%	7.9%	4.8%	6.2%
Stroke	4.9%	2.7%	3.6%	6.7%	3.4%	4.9%

Our Solution

With our portfolio of TCAR products, we have pioneered a new approach for the treatment of carotid artery disease and are seeking to establish TCAR as the standard of care. TCAR is a minimally-invasive solution that addresses the morbidity of CEA and the 30-day stroke risk of CAS, while providing a reduction in long-term stroke risk. We believe that by meeting the standard of brain protection and reduction in 30-day and long-term stroke risk afforded by CEA in a minimally-invasive manner, TCAR offers an attractive alternative for patients, providers and payers and will be able to successfully penetrate the carotid revascularization market. We also believe that physicians and patients will consider TCAR with medical management as an alternative to medical management alone as further clinical evidence and experience accrues.

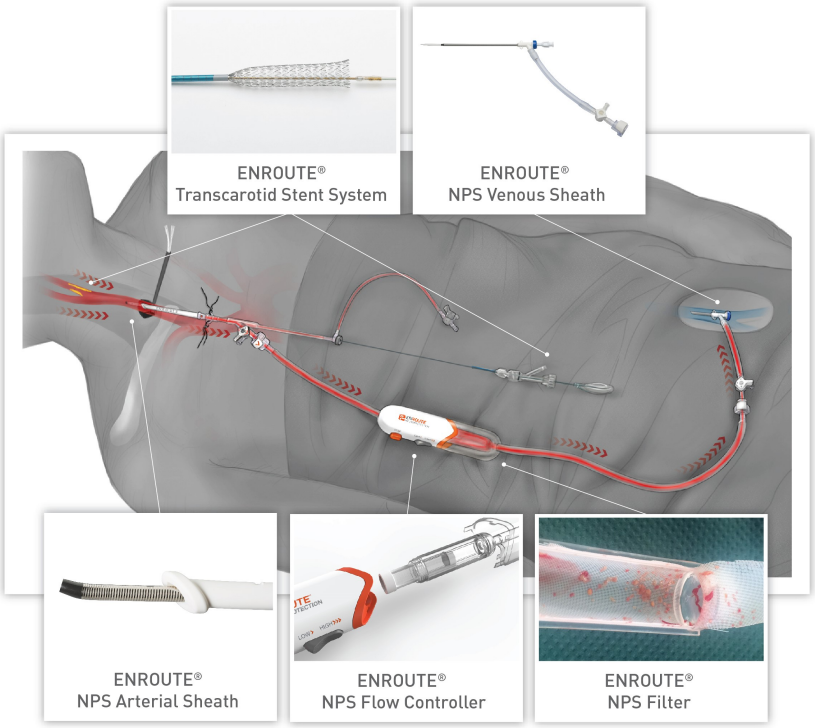
Transcarotid Artery Revascularization, or TCAR

TCAR relies on two novel concepts: minimally-invasive direct carotid access in the neck, and high-rate blood flow reversal during the procedure to protect the brain.

The TCAR procedure begins with a two- to three-centimeter incision slightly above the collarbone, thereby obviating the need to maneuver catheters from the groin. The incision is made just above the collarbone to expose a small section of the carotid artery well below the carotid stenosis and most of the cranial nerves. A puncture is made into the carotid artery using our transcarotid access kit, and our proprietary sheath is placed inside the carotid artery. This sheath is connected to the rest of our flow reversal system, which lies outside the body, and ends in a connection to our venous sheath in the patient's groin. After the carotid artery is clamped just below the sheath, the pressure gradient between the high-pressure arterial system in the neck and the low-pressure venous system in the groin system creates the blood flow reversal, which redirects dislodged plaque and debris away from the brain where it is captured in an external filter in our system.

While the brain is protected by flow reversal, our guidewire is navigated across the lesion and our transcarotid stent is delivered and placed in the carotid artery to stabilize the plaque against the wall of the artery, trapping the lesion and reducing the risk of a future stroke. The short distance enabled by our transcarotid access allows for accurate stent placement. Balloon catheters can also be used to pre-dilate the lesion or further expand the stent when appropriate. Any debris released during these steps of the procedure is directed safely away from the brain by the flow reversal. Clinical studies have shown that patients can tolerate this temporary redirection of blood flow, which usually lasts for approximately ten minutes, due to the redundant network of arteries in the brain that enable it to receive blood flow and oxygen through multiple pathways. After our transcarotid stent is implanted, the blood flow is returned to normal, the system is removed, and the artery and small wound are sutured closed.

The following diagram depicts our portfolio of TCAR products:



Key Clinical Advantages of TCAR

We believe the key advantages of TCAR relative to CEA and CAS include:

- ***Reduction in stroke risk.*** In our pivotal ROADSTER clinical trial, TCAR demonstrated a 30-day stroke rate of 1.4% in 141 high surgical risk patients. In the study publication from the Journal of Vascular Surgery in November 2015, the authors reported that the 30-day stroke rate of 1.4% was the lowest reported for any prospective, multicenter trial of carotid artery stenting. In addition, although we have not conducted any head-to-head studies comparing TCAR to CAS or CEA, in November 2018, we became aware that the Society for Vascular Surgery reported data from the TCAR Surveillance Project regarding 2,545 TCAR procedures, which showed a statistically significant reduction in the rate of in-hospital stroke, and stroke and death, as compared to data from 9,460 CAS patients, and a statistically equivalent reduction in in-hospital stroke, and stroke and death, as compared to data from 43,114 CEA patients, despite TCAR patients being older and sicker than CEA patients.
- ***Low surgical morbidity***. The minimally-invasive nature of TCAR offers inherent advantages that can mitigate adverse events typically associated with CEA, including cranial nerve injury and myocardial infarction. Data from the Society for Vascular Surgery's TCAR Surveillance Project from 2,545 TCAR procedures showed a statistically significant ten-fold reduction in the rate of cranial nerve injury as compared to data from 43,114 CEA patients. Similarly, data from our ROADSTER study indicated that TCAR had a heart attack rate of 0.7% in high surgical risk

patients within 30 days of the procedure. CREST data regarding standard surgical risk patients showed a 30-day heart attack rate of 2.3% and 1.1% for CEA and CAS, respectively.

- ***Minimal patient discomfort and rapid recovery.*** While the typical incision required for CEA is ten to fifteen centimeters long, the TCAR incision is generally two to three centimeters long, leaving behind a much smaller wound and scar that often only requires non-opioid pain medications and little more than a steri-strip to cover the operative wound. In our ROADSTER clinical study, 53% of TCAR procedures were performed under local anesthesia. In addition, real-world data from the Society for Vascular Surgery's TCAR Surveillance Project showed a statistically significant reduction in the likelihood that a TCAR patient would require a hospital stay in excess of one day as compared to a CEA patient.
- ***Reduction in the risk of microembolic debris.*** While large emboli have dominated clinical focus and discussion due to the ability to cause clinically diagnosed stroke or TIAs, there is a growing body of evidence that indicates that showers of micro emboli to the brain, which, for example, may be caused by the CAS procedure, can cause neurologic injuries including memory loss, cognitive decline and dementia, while increasing the risk of future stroke. Data from our PROOF clinical trial indicated that only 18% of studied patients presented with new white lesions occurring on the same side of the brain, or ipsilateral, as the treated carotid artery, as shown on diffusion-weighted magnetic resonance imaging studies. This rate of new white lesions, which indicate brain injury, was comparable to published data for CEA procedures and significantly lower than published data for CAS procedures, which show a range of 45% to 87% of patients with new white ipsilateral lesions.

We believe the results of our clinical studies provide evidence that TCAR may offer significantly better reduction in stroke risk than CAS and similar reduction in stroke risk compared to CEA, the current standard of care for carotid revascularization, allowing physicians to present the minimally-invasive alternative of TCAR to patients without compromising the reduction in stroke risk they would expect in a CEA procedure. We believe the growing clinical evidence base from our ongoing and future studies and the Society for Vascular Surgery's TCAR Surveillance Project will continue to drive confidence in the procedure and support continued adoption.

Benefits to Other Key Stakeholders

In addition to offering clinical benefits to patients, we believe that TCAR also offers valuable non-clinical benefits for providers and payers relative to CEA and CAS.

Providers

We believe TCAR allows for improved hospital workflow given the simplicity, predictability, and efficiency of the procedure as compared to CEA and CAS. By allowing direct access to the carotid artery rather than requiring the physician to navigate the vasculature as in CAS, and allowing the physician to place a stent to trap plaque rather than requiring the time-consuming and physically burdensome surgical removal of carotid plaque as in CEA, we believe TCAR is a more efficient and predictable procedure. Data from the Society of Vascular Surgery's TCAR Surveillance Project has shown that the average TCAR procedure time has been statistically significantly shorter and that there has been a statistically significant reduction in the percent of hospital stays longer than one day, relative to CEA. These benefits can help hospitals to better utilize their operating room capacity and fixed overhead and reduce the number of procedures associated with hospital stays longer than one day, which have been shown to result in financial losses for the hospital facilities. We believe the economic benefits are further aided by the reduction in expensive adverse events that are borne by capitated providers or absorbed within 90-day global periods related to hospital reimbursement. Through third-party consultants, we have performed economic analyses of TCAR using our own clinical data from the ROADSTER study and published data for CEA surrounding cost inputs for both procedures and national weighted average

reimbursement rates. We believe the results of these analyses show that TCAR compares favorably to CEA in terms of hospital margins and economic value proposition for the procedure itself as well as the full length of hospital stay.

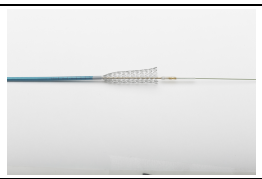
Payers

Stroke is one of the costliest conditions for the healthcare system and ranked in the top ten most expensive conditions for Medicare, Medicaid, and private insurers in 2013. By reducing the 30-day stroke risk from the procedure and the long-term stroke risk from the disease after 30 days, we believe that TCAR mitigates the significant cost burden associated with the morbidity of stroke victims. In addition to reducing costs associated with stroke, we believe TCAR also helps to reduce downstream costs associated with rehabilitation of cranial nerve injuries, myocardial infarction, microembolization and other adverse events.

Our Product Portfolio

TCAR is enabled by our proprietary portfolio of TCAR products designed to provide direct access to the carotid artery, effective reduction in stroke risk throughout the procedure, and long-term restraint of carotid plaque. In addition to enabling the safety and effectiveness of TCAR, our proprietary products are specifically designed to enable a short learning curve, consistent ease of use and physician comfort. Our products are also currently the only devices cleared and approved by the FDA specifically for transcarotid use.

Today, our product portfolio consists of the following four single use components. Based on our experience, the full product portfolio is used in the majority of TCAR procedures. In the future we plan to continue to expand our product portfolio to include additional tools and devices to support the TCAR procedure.

ENROUTE Transcarotid Neuroprotection System		• Used to directly access the common carotid artery and initiate temporary blood flow reversal • Allows for flow modulation enabling lesion imaging and patient tolerability • Only FDA-cleared transcarotid neuroprotection system
ENROUTE Transcarotid Stent System		• Self-expanding, self-tapering stent with clinical data regarding lasting safety outcomes • Transcarotid delivery system improves the accuracy and the overall ergonomics of the TCAR procedure • Only FDA approved transcarotid stent system
ENHANCE Transcarotid Peripheral Access Kit		• Used to gain initial access to the common carotid artery • Only access kit specifically designed for use in the common carotid artery
ENROUTE 0.014" Guidewire		• Main conduit for navigating and crossing the target lesion for delivery of interventional devices • Short working length and proprietary tip designed for TCAR

Our ENROUTE NPS and ENROUTE stent are FDA cleared and approved, respectively. The ENROUTE NPS is cleared for transcarotid vascular access, introduction of diagnostic agents and therapeutic devices, and embolic protection during carotid artery angioplasty and stenting procedures for

patients diagnosed with carotid artery stenosis and who have appropriate anatomy, and the ENROUTE stent is approved for use in conjunction with the ENROUTE NPS for the treatment of patients at high risk for adverse events from carotid endarterectomy who require carotid revascularization and meet certain criteria.

Our Target Market

We are working to establish TCAR as the preferred alternative to both CEA and CAS for the treatment of patients with carotid artery disease. Because TCAR offers clinically proven, minimally-invasive reduction in stroke risk, we believe that TCAR offers a better solution for the approximately 152,000 patients in the United States each year who are currently treated with either CEA or CAS, which we estimate to be a near-term market conversion opportunity greater than $0.9 billion. Additionally, we believe that as our technology becomes more widely adopted, TCAR may become a compelling alternative for patients that are treated with medical management alone each year. As a result, we believe the potential addressable opportunity for TCAR includes the approximately 403,000 individuals in the United States who are diagnosed with carotid artery disease each year, representing a total U.S. target market opportunity of approximately $2.4 billion annually.

Currently, our ENROUTE stent is indicated for use in patients who are considered high surgical risk, and either are symptomatic with greater than or equal to 50% stenosis or are asymptomatic with greater than or equal to 80% stenosis. The labeled indications for use for our other products, including the ENROUTE NPS, are agnostic to surgical risk status. Based on the FDA label of high surgical risk for our stent, CMS provides reimbursement coverage for TCAR in patients who are considered a high surgical risk but not standard surgical risk. According to published studies and primary research, we believe the high surgical risk population represents approximately two-thirds, or over 100,000, of the approximately 152,000 patients treated for carotid artery disease with either CEA or CAS in the United States each year. We are currently focused on clinical development activities to support label expansion for our ENROUTE stent to standard surgical risk patients. We would then seek an associated expansion in CMS reimbursement coverage.

While our current commercial focus is on the U.S. market, our ENROUTE NPS and ENROUTE stent have obtained CE Mark approval, allowing us to commercialize in Europe in the future. We intend to pursue regulatory clearances in China, Japan, and select other international markets. Carotid artery disease and stroke are prevalent, devastating and costly conditions worldwide, and we estimate that a significant opportunity exists for TCAR outside the United States, since the United States represents only 10% of the estimated global incidence of ischemic stroke.

Our Growth Strategy

Our mission is to be the global leader in the treatment of carotid artery disease. We seek to establish TCAR as the standard of care for carotid revascularization by converting the base of existing CEA and CAS procedures and expanding the market to include patients treated with medical management alone. Our growth strategies include:

- ***Strategically expanding our U.S. sales force and marketing activities***. As of December 1, 2018, we have approximately 400 hospital accounts across 25 territories. To date, we have taken a measured approach to account targeting and physician training. Over time, we plan to selectively add highly qualified personnel to our commercial organization with a strategic mix of selling professionals and clinical specialists to cover the concentrated group of approximately 2,800 physicians and 750 hospitals that we believe perform 80% of carotid revascularization procedures. As we grow the size of our U.S. sales organization, we plan to remain focused on educating hospitals and physicians regarding TCAR, which we believe will increase the adoption of TCAR in existing hospital accounts while expanding our new account and trained physician base.

- ***Scaling professional education to drive physician use.*** As of December 1, 2018, we have trained approximately 725 physicians in the United States. Our education and training courses are led by a highly regarded faculty of key opinion leaders in vascular surgery, allowing for significant peer-to-peer interaction and influence from experienced TCAR practitioners. These courses have been fully subscribed since inception. We believe these professional education initiatives are a key differentiator in driving successful outcomes during the learning curve of TCAR and establishing the confidence physicians need to adopt TCAR. We plan to continue conducting these courses while regionalizing the course locations, continuously improving the program, and expanding our physician faculty.

- ***Increasing TCAR adoption.*** In our existing account and trained physician base, we have shown an ability to drive adoption in high surgical risk patients where CEA might otherwise be riskier or technically challenging, as well as in patients with anatomy or risk factors unfavorable for CAS. Our strategy is to continue educating physicians regarding TCAR across broader patient subgroups as physicians' experience and confidence with the procedure accrues and our clinical evidence base expands through the Society for Vascular Surgery's TCAR Surveillance Project and our ongoing and future studies. We also plan to continue converting CEA or CAS procedures to TCAR in current hospital accounts by training additional physicians in each account.

- ***Building our clinical evidence base***. Vascular surgeons typically rely on clinical evidence to drive changes in their practice. Primary care physicians and specialist referrers like neurologists and cardiologists also scrutinize clinical evidence. We plan to continue to build our clinical evidence base by completing enrollment in ROADSTER 2 and commencing new clinical studies intended to support marketing efforts and regulatory initiatives. We also expect the Society for Vascular Surgery's ongoing TCAR Surveillance Project registry to continue to grow and produce valuable presentations and published papers with comparative data and sub-group analyses that will further define the role of TCAR across patient populations.

- ***Broadening the indication for the ENROUTE stent and expanding reimbursement.*** We plan to continue to work to expand FDA labeling for the ENROUTE stent to address the approximately one-third of treated patients who are standard surgical risk. If we obtain approval of a label expansion, we intend to pursue Medicare coverage for TCAR in standard surgical risk patients.

- ***Pursuing international markets.*** Carotid artery disease and stroke are prevalent, devastating and costly conditions worldwide, and we estimate that a significant opportunity exists for TCAR outside the United States. We currently have CE Mark for the ENROUTE NPS and ENROUTE stent, which would allow us to commercialize in Europe in the future. We are also actively working towards regulatory clearances for our products in China and Japan.

- ***Continuing our history of innovation in and beyond TCAR.*** We are currently developing additional and next generation products to support and improve TCAR to meet the evolving needs of physicians and their patients. We also have a broad intellectual property platform and, in the future, we intend to leverage our expertise and the physiologic and engineering advantages made possible by our transcarotid approach to develop new products targeting procedures and vascular disease states in the heart, aortic arch and brain.

Clinical Data

The safety, effectiveness and clinical advantages of TCAR have been observed in multiple clinical trials and post-market studies that have collectively evaluated more than 3,500 patients in the United States and Europe to date. Our first-in-human trial, the PROOF Study, was initiated as a feasibility study to assess the safety and performance of the ENROUTE NPS and later was expanded to support CE marking of the ENROUTE NPS. Data from the PROOF Study were also used to support FDA approval of the investigational device exemption, or IDE, for the ROADSTER Study. Data from the pivotal cohort of the ROADSTER Study supported FDA 510(k) clearance of the ENROUTE NPS, and a subset of the data supported pre-market, or PMA, approval of the ENROUTE stent. The results of the pivotal phase of the

ROADSTER study were published in November 2015 in the Journal of Vascular Surgery. We are currently conducting a post market approval study, ROADSTER 2, to evaluate the outcomes in TCAR procedures using the ENROUTE stent used in conjunction with the ENROUTE NPS in broader, “real-world” use in a minimum of 600 patients. Data on TCAR outcomes also continues to accrue through the Society for Vascular Surgery-sponsored TCAR Surveillance Project, an ongoing real-world, open-ended registry which includes over 2,500 TCAR procedures reported on since its initiation in September 2016.

Summary of Key Clinical Trials

	PROOF	ROADSTER	ROADSTER 2	TCAR Surveillance Project
Study Type	First in Human CE Marking DW-MRI Sub-Study	U.S. Pivotal IDE Study	U.S. Post-Approval Study	Real world observation
Patients	75 pivotal 56 DW-MRI Sub-Study	141 Pivotal 78 Continued Access 52 Stent Sub-Study	600+	Open Ended
Profile	High Surgical Risk and Standard Surgical Risk	High Surgical Risk	High Surgical Risk	High Surgical Risk
Status/Publication	Complete J Endovasc Ther. 2017 Apr;24(2):265-270	Complete J Vasc Surg. 2015 Nov;62(5):1227-34 (pivotal cohort only)	Enrolling 637 patients to date	Enrolling >2,500 patients to date
Carotid Stent Systems Used	• CE Marked Carotid Stents, including the Cordis Precise Stent	• FDA Approved Carotid Stents, including the Cordis Precise Stent	• ENROUTE Transcarotid Stent System	• ENROUTE Transcarotid Stent System

Summary of TCAR Clinical Trial Outcomes

	PROOF	ROADSTER - pivotal phase		ROADSTER - continued access		Pooled ROADSTER	
	ITT population	ITT population	Per-protocol	ITT population	Per-protocol	ITT population	Per-protocol
Stroke at 30 days							
All stroke[(1)]	1.3%	1.4%	0.7%	1.3%	0.0%	1.4%	0.5%
All stroke and death	1.3%	2.8%	2.2%	1.3%	0.0%	2.3%	1.5%
Other adverse events at 30 days							
Myocardial infarction	0.0%	0.7%	0.7%	2.6%	1.5%	1.4%	1.0%
Cranial Nerve Injury *(Acute)*	2.7%	0.7%	NR	0.0%	NR	0.5%	NR
Cranial Nerve Injury *(persisting at 6 months)*	2.7%	0.0%	NR	0.0%	NR	0.0%	NR
Procedural information							
Mean procedure time (mins)	NR	73.6	NR	72.4	NR	73.2	NR
Mean length of stay *(days)*	NR	1.9	NR	1.4	NR	1.7	NR

(1) All strokes observed have been minor strokes; No major strokes have been observed.

PROOF First-in-human Clinical Trial

Our first-in-human trial, the PROOF Study, was a single-arm trial conducted at one trial site in Europe from 2009 to 2012. The PROOF Study was initiated as a feasibility study to assess the safety and performance of the ENROUTE NPS in a limited number of patients, initially enrolling 10 patients. The PROOF Study was later expanded to 75 patients to collect the clinical data necessary to support CE marking of the ENROUTE NPS. Data from the PROOF Study were also used to support FDA approval of the IDE for the ROADSTER Study.

The PROOF Study enrolled patients that were classified as high surgical risk, as well as patients classified as standard surgical risk. The results from the PROOF Study demonstrated that TCAR was technically feasible and resulted in a stroke incidence of 1.3% within 30 days, which was significantly lower than that reported for CAS in prior clinical trials.

Additionally, a sub-study of 56 patients underwent pre- and post-procedure diffusion-weighted magnetic resonance image scanning, or DW-MRI, to detect new white lesions on the ipsilateral side of the brain as a sensitive surrogate marker of microemboli and brain injury. The analysis resulted in only 18% of the treatment population presenting with ipsilateral new white lesions, which was also comparable to that reported for CEA in prior clinical trials and significantly less than that reported in prior CAS trials.

Pivotal ROADSTER Clinical Trial

Our pivotal trial, the ROADSTER Study, was a single-arm trial conducted at 17 sites across the United States and one site in Europe from 2012 to 2014. The design of the ROADSTER Study, which was used to support FDA 510(k) clearance of the ENROUTE NPS, was largely based upon predicate embolic prevention studies and followed the relevant FDA guidance published in 2008. In the pivotal phase, the ROADSTER study enrolled 141 patients that were classified as being at high surgical risk.

The primary endpoint of the ROADSTER Study was a hierarchical composite of stroke, death or myocardial infarction within 30 days. Key secondary endpoints included acute device, technical and procedural success at 30 days, as well as cranial nerve injury at six months. The results of the ROADSTER Study were analyzed on an “intention to treat,” or ITT basis, as well as a “per protocol,” or PP basis. The ITT results accounted for all patients enrolled in the clinical trial, including patients treated despite major protocol deviations. The PP results included only patients that met all of the inclusion and none of the exclusion criteria and who were compliant with the protocol-mandated study medication regimen. There were no patients lost to follow-up in either the ITT or PP cohorts.

On an ITT basis, the primary endpoint event rate in the pivotal phase of the ROADSTER Study was a 3.5% hierarchical composite rate of stroke, death or myocardial infarction at 30 days, comprised of two strokes, or a 1.4% incidence, two deaths, or a 1.4% incidence, and one myocardial infarction, or a 0.7% incidence. Both deaths were respiratory in nature and were independently adjudicated as not related to the device. There were no site-reported cardiovascular or neurologic deaths, although our independent clinical events committee adjudicated one death as cardiovascular. There were no major strokes. There was one report of an acute cranial nerve injury, representing a 0.7% incidence, which resolved within six months. These data supported FDA 510(k) clearance of the ENROUTE NPS.

In the PP analysis, the primary endpoint event rate was 2.9%, comprised of one stroke, or a 0.7% incidence, two deaths, or a 1.5% incidence, and one myocardial infarction, or a 0.7% incidence.

A continued access phase of the ROADSTER Study was conducted during the time that the 510(k) premarket notification for the ENROUTE NPS was under review by FDA. This phase enrolled an additional 78 patients with the same primary and secondary endpoints as the pivotal phase of the ROADSTER Study. The results of the continued access phase were similar to those reported in the

pivotal phase of the ROADSTER study. The ENROUTE NPS was 510(k) cleared by the FDA in February 2015.

Following a pre-submission interaction with the FDA, the FDA permitted data from a sub-analysis of 52 patients in the ROADSTER Study who were treated with the Cordis Precise Pro RX Carotid Stent System to be used, in conjunction with existing data from Cordis on CAS clinical trials performed with the Cordis Precise Pro RX, to support our pre-market approval application for the ENROUTE stent. The ENROUTE and Precise stent systems share the same design for the stent implant itself, and differ only in the design of the delivery system. Based on this data, the PMA for the ENROUTE stent was approved in May 2015.

We also initiated a separate sub-study of patients treated PP in the ROADSTER pivotal and continued access cohorts to assess the longer-term rate of ipsilateral stroke beyond 30 days. This sub-analysis, which consisted of 164 patients including 112 from the pivotal phase and 52 from the continued access phase, provided insight into the ability of TCAR to limit stroke incidence in longer-term follow-up. At one-year follow-up, the ipsilateral stroke rate was 0.6% and the mortality rate was 3.7% past 30 days.

ROADSTER 2 U.S. Post Market Approval Study

The ROADSTER 2 Post Approval Study is a condition of PMA approval for the ENROUTE stent. The study is intended to evaluate the outcomes in TCAR using the ENROUTE stent in conjunction with the ENROUTE NPS in broader, “real world” use. Like the sub-analysis from the ROADSTER Study that led to PMA approval of the ENROUTE stent, the primary endpoint, which is being assessed on a PP basis, is the rate of procedural success at 30 days in high surgical risk patients with a three year minimum life expectancy.

The ROADSTER 2 post approval study must enroll a minimum of 600 patients at a minimum of 30 sites. 70% of the participating sites must be new sites that did not participate in the ROADSTER Study. Enrollment commenced in 2015. Enrollment and final 30-day follow-up assessments are expected to be completed in 2019.

We are required to submit semi-annual, interim reports to the FDA on the progress of, and outcomes for, the ROADSTER 2 Post Approval Study. In our most recent report to the FDA dated November 15, 2018, 550 patients have been enrolled and treated PP. Of those patients, 512 have completed the 30-day follow-up assessment. For those patients completing the 30-day follow-up assessment, the procedural success rate is 98.2%. The rate of procedural success in ROADSTER 2 compares favorably to the rate of procedural success in the combined pivotal and continued access cohorts of the initial ROADSTER study. Other key clinical endpoints include the rates of hierarchical ipsilateral stroke, death and myocardial infarction, cardiac death, neurologic death and cranial nerve injury. These key clinical endpoints in ROADSTER 2 are summarized in the following table:

ROADSTER 2: key clinical endpoints at 30 days

	N=550
Stroke and death at 30 days	
All stroke	0.9%
All stroke and death	1.1%
Other adverse events at 30 days	
Ipsilateral Stroke	0.7%
Rate of Death - Cardiac	0.2%
Rate of Death - neurologic	0.0%
Rate of Death - Other	0.0%
Rate of Cranial Nerve Injuries (Acute)	1.5%
Myocardial infarction	0.9%
Procedural information	
Mean procedure time (mins)	75.0
Mean length of stay (days)	1.9

The Society for Vascular Surgery's TCAR Surveillance Project

The TCAR Surveillance Project was implemented in September 2016 as an initiative of the Society for Vascular Surgery Patient Safety Organization. The TCAR Surveillance Project is an ongoing, open-ended registry that was designed to monitor the safety and effectiveness of transcarotid stents placed directly into the carotid artery while reversing blood flow within the carotid artery. It is intended to compare TCAR with CEA in centers that participate in the Society for Vascular Surgery Vascular Quality Initiative, or VQI. The TCAR Surveillance Project was reviewed by the FDA and deemed to be a scientifically valid extension study of TCAR, thereby allowing CMS to provide coverage within the parameters of the existing National Coverage Determination. The Society for Vascular Surgery VQI is designed to improve the quality, safety, effectiveness and cost of vascular health care by collecting and exchanging information, and it is available to all providers of vascular health care and their respective institutions. Because data from CAS procedures are also collected in the Society for Vascular Surgery VQI, comparisons of TCAR to CAS can also be made.

Eligible patients must meet the inclusion criteria specified for the TCAR Surveillance Project. Generally, patients must be at high surgical risk and must have had their TCAR procedure performed using any FDA-cleared transcarotid proximal embolic protection device utilizing flow reversal, such as our ENROUTE NPS, and any FDA-approved transcarotid stent, such as our ENROUTE stent***.*** To date, the ENROUTE stent and the ENROUTE NPS are the only such devices cleared and approved by the FDA. TCAR procedures entered into the Society for Vascular Surgery VQI carotid artery stenting registry for the TCAR Surveillance Project are eligible for reimbursement by Medicare if the patients meet the requirements set forth above. We believe the TCAR Surveillance Project represents a unique

collaboration between a physician specialty society, the FDA and CMS. It also marks the first time that CMS has granted broader reimbursement for a stent-based treatment paradigm for carotid artery disease in a registry not managed by industry.

The TCAR Surveillance Project is intended to be a repository for TCAR procedures and outcomes data to broaden the clinical evidence base for TCAR. TCAR is one of many surgical and endovascular procedures that is tracked by the Society for Vascular Surgery VQI. Over time, it is expected that academic researchers will query the database and produce publications in peer review journals regarding the safety and effectiveness of TCAR in real world use.

The primary outcome measure of the TCAR Surveillance Project is one-year ipsilateral stroke or death. The TCAR Surveillance Project also tracks in-hospital stroke, death and myocardial infarction. Other secondary outcomes, such as cranial nerve injury and re-intervention, are also being reported. For the secondary outcome measures, any stroke will be counted and in-hospital stroke events are not limited to the ipsilateral side.

TCAR Surveillance Project: TCAR vs. CEA

Contemporaneous comparative outcomes from January 2016 to September 2018 were presented in November 2018 in both unadjusted analyses as well as analyses adjusted for the baseline characteristics of the patient populations. In general, patients treated with TCAR were older than patients treated with CEA, and were more likely to have coronary co-morbidities, renal dysfunction and a prior carotid intervention. Below is a summary of the outcomes presented and the patient demographics in which there was a statistically significant difference between the populations.

TCAR vs. CEA Unadjusted Outcomes (in hospital)

Stroke and other adverse events	TCAR (%) N=2,545	CEA (%) N=43,114	P-value
Major adverse events at 30 days			
Stroke/Death	1.8	1.4	0.09
Stroke/Death/Myocardial infarction	2.1	1.8	0.17
Stroke	1.4	1.2	0.27
Death	0.5	0.3	0.04
30-day Death	0.9	0.6	0.08
Other adverse events at 30 days			
Myocardial infarction	0.4	0.4	0.71
Cranial nerve injury	0.2	2.7	<.001
Bleeding	1.4	1.0	0.05
Other procedural information			
Mean procedure time (mins)	75.0	116.0	<0.001
Length of stay >1 day	29%	32%	<0.01

TCAR vs. CEA Baseline Demographics (% of patients)

	TCAR N=2,545	CEA N=43,114	P-value
Age	73.1 + 9.4	70.6 + 9.6	<.001
Female	36.2%	39.4%	<.01
Coronary artery disease	51.3%	26.9%	<.001
Prior congestive heart failure	18.8%	11.2%	<.001
Prior coronary artery bypass grafting	23.7%	19.8%	<.001
Prior percutaneous coronary intervention	28.2%	22.1%	<.001
Chronic obstructive pulmonary disease	29.2%	23.2%	<.001
Glomerular filtration rate<60	40.6%	34.3%	<.001
Current smoker	23.5%	25.3%	0.05
Prior carotid revascularization	30.7%	15.0%	<.001
Aspirin	89.8%	83.9%	<.001
Antiplatelet	84.7%	34.5%	<.001
Statin	88.3%	83.4%	<.001
Beta-blockers	55.1%	51.0%	<.001
Anticoagulants	13.4%	10.4%	<.001
Anesthesia	82.7%	92.3%	<.001

The unadjusted results to date from the TCAR Surveillance Project show that TCAR has provided similar in-hospital reduction in stroke risk as compared to CEA, despite treating sicker, older patients with TCAR, and TCAR showed significantly lower risk of cranial nerve injury. The incidence of in-hospital death in the unadjusted outcomes was slightly higher for TCAR due to the co-morbidities in the TCAR patients. Patients treated with TCAR were generally older and had more co-morbidities than the cohort of patients treated with CEA. As such, the odds ratio of in-hospital death between TCAR and CEA is the same when adjusting for patient risk factors.

In the unadjusted analysis, cranial nerve injury and bleeding were significantly different between TCAR and CEA. TCAR patients had a ten-fold reduction in risk of cranial nerve injury when compared to CEA, and TCAR had a significantly higher rate of bleeding. When adjusting for risk and in a propensity matched analysis, the rate of bleeding was not significantly different between TCAR and CEA, however, the significantly lower risk of cranial nerve injury with TCAR remained.

Average TCAR procedure time was significantly shorter and there was a significant reduction in the percent of hospital stays longer than one day, relative to CEA. These benefits can help hospitals to better utilize their operating room capacity and fixed overhead and reduce the number of procedures associated with hospital stays longer than one day, which have been shown to result in financial losses for the hospital facilities.

TCAR Surveillance Project: TCAR vs. CAS

In a similar analysis comparing TCAR to CAS, TCAR showed significantly lower rates of stroke and death; stroke, death and myocardial infarction; in hospital death; and death within 30 days in both the adjusted and unadjusted analysis. When adjusted for baseline risk characteristics associated with the patient population, the difference in bleeding events was no longer significant. Below is a summary of the outcomes presented and patient demographics for patient characteristics with a statistically significant difference between the populations.

TCAR vs. CAS Unadjusted Outcomes (in hospital)

Stroke and other adverse events	TCAR (%) N=2,545	CAS (%) N=9,460	P-Value
Stroke/Death	1.8	3.3	<.001
Stroke/Death/Myocardial infarction	2.1	3.5	<.001
Stroke	1.4	2.2	0.02
In-hospital Death	0.5	1.4	<.001
30-day Death	0.9	2.0	<.001
Myocardial infarction	0.4	0.3	0.62
Bleeding	1.4	0.6	<.001

TCAR vs CAS Baseline Demographics (% of patients)

	TCAR N=2,545	CAS N=9,460	P-Value
Age	73.1 + 9.4	69.6 + 3.7	<.001
Black	4.5%	6.1%	<.01
Asymptomatic	52.3%	38.1%	<.001
Coronary artery disease	51.3%	38.9%	<.001
Prior congestive heart failure	18.8%	16.6%	<.01
Prior coronary artery bypass grafting	23.7%	20.8%	<.01
Prior percutaneous coronary intervention	28.2%	25.7%	0.01
Chronic obstructive pulmonary disease	29.2%	27.0%	0.03
Glomerular filtration rate<60	40.6%	34.5%	<.001
Current Smoker	23.5%	28.5%	<.001
Prior CEA	25.1%	28.2%	<.01
Prior CAS	8.0%	19.3%	<.001
Aspirin	89.8%	85.1%	<.001
Antiplatelet (other than aspirin)	84.7%	74.7%	<.001
Statin	88.3%	81.6%	<.001
Beta-blockers	55.1%	52.6%	0.03
Anticoagulants	13.4%	11.7%	0.02
Medical high risk	59.4%	36.0%	<.001
Anatomic high risk	50.6%	43.8%	<.001
General Anesthesia	82.7%	20.0%	<.001

Ongoing and Planned TCAR Studies

In addition to the Society for Vascular Surgery's TCAR Surveillance Project and our ongoing ROADSTER 2 study, we have one ongoing study in the European Union enrolling up to 50 patients and evaluating the rate of sub-clinical embolization, or new white lesions, as detected on DW-MRI in recently symptomatic patients. Twenty-five patients have been enrolled to date at three hospitals in Germany, Belgium and Spain. The primary endpoint is the rate of ipsilateral new white lesions as seen on DW-MRI at 30 days compared to pre-procedure baseline white lesions. The evaluation of the presence of new white lesions is conducted in a blinded fashion by an independent neuroradiologist.

We are planning to conduct a similar study at four hospitals in the United States and one in the European Union. Institutional review board and ethics committee approvals are being sought and it is anticipated that enrollment will begin in the first quarter of 2019. Like the European Union study, the primary endpoint is the rate of ipsilateral new white lesions at 30 days. Enrollment of up to 75 patients is planned.

Our Commercial Strategy

We designed our commercial strategy and built our direct sales force to target primarily vascular surgeons across the United States, who we believe represent the primary specialty managing the care of and receiving referrals for patients with carotid artery disease. We believe there are approximately 2,800 physicians, of which approximately 1,700 are vascular surgeons and 550 are cardiothoracic surgeons or neurosurgeons, and 750 hospitals that perform an estimated 80% of annual carotid revascularization procedures in the United States. Vascular surgeons are skilled in endovascular procedures and our sales, marketing, professional education and medical affairs efforts are focused on driving adoption and supporting their practice development by offering them an innovative, safe, effective and minimally-invasive alternative for treating carotid artery disease.

In the United States, we market and sell our portfolio of TCAR products for TCAR through a direct sales organization consisting of 26 sales representatives, known as area managers, or AM's, and 41 clinical support specialists, known as therapy development specialists, or TDS's, as of December 1, 2018. Our sales professionals have substantial experience launching and establishing new disruptive therapies and converting open surgical procedures to minimally-invasive alternatives. We primarily market our products directly to vascular surgeons, their staffs, operating room managers and hospital administrators. We also market to other specialists with experience in CEA and/or CAS with the appropriate skill set for TCAR, including neurosurgeons, cardiothoracic surgeons and non-surgical interventionalists in radiology, neuroradiology and cardiology. We do not currently sell our products in markets outside the United States.

Our area managers are responsible for developing territory business plans, targeting and opening new accounts, promoting the benefits of TCAR and our products, and driving adoption and penetration of TCAR. In addition, they help physicians and their staff to build TCAR programs, drive patient referral initiatives, and provide resources to help with practice development, reimbursement and patient education. Together with the therapy development specialists, they also support the training and proper use of our TCAR portfolio of products and provide clinically consultative support for patient selection, pre procedure planning, procedure support, and post-procedure care. As we continue to grow the size of our U.S. sales organization, with a focus on increasing adoption of TCAR by existing customers and expanding our current customer base, we expect to focus on adding a strategic mix of area managers and therapy development specialists.

Additionally, we support our sales organization with marketing and market and practice development initiatives. We plan to continue to expand and enhance our marketing and analytics capabilities to support our growing commercial organization and customer base.

Professional Education and Sales Training

We are focused on developing strong relationships with our customers and devote significant resources to training and educating physicians in the use of TCAR and our associated products. Our Office of Medical Affairs leads our physician education and training programs in addition to disseminating the scientific information and clinical data supporting TCAR. The Office of Medical Affairs also leads compliance activities.

Our practice is to require physicians to complete a training program before performing TCAR, which is also a regulatory requirement derived from the PMA approval of the ENROUTE stent. To facilitate training, we have developed a robust training course including clinical and procedural details as well as hands-on workshops designed to provide the highest potential for successful outcomes. We also selectively provide training through physician proctors on an as needed basis. Based on our experience, physicians usually require three to five procedures of dedicated training and achieve an adoption inflection point after approximately 10 procedures, after which point they require minimal ongoing case support from our sales team. As of December 1, 2018, we have trained approximately 725 physicians in the United States.

Through the Office of Medical Affairs, our highly specialized area managers and therapy development specialists, along with other key employees, receive in-depth training and develop a thorough understanding of carotid artery disease, patient selection, imaging interpretation, procedure planning, reimbursement and regulatory policies to meaningfully support our customers and maintain compliance. Our extensive training and continuous education program consists of in-person foundational training, procedure observation, and sales skills development. Our personnel are selected based on their focus on patient outcomes and the entire customer experience in addition to their technical aptitude.

Coverage and Reimbursement

Since achieving regulatory clearances and approvals for our portfolio of TCAR products, we have successfully launched our products, driven adoption of TCAR and made significant progress securing reimbursement codes and payer coverage.

During the ROADSTER trial, the Society for Vascular Surgery helped to guide modifications of existing reimbursement coding descriptions to ensure their applicability to TCAR. In 2015, we also confirmed with CMS that TCAR, like CAS, was considered under the purview of the National Coverage Determination 20.7, or NCD, for Percutaneous Transluminal Angioplasty.

According to the Healthcare Utilization Project, Medicare is the primary payer for carotid revascularization procedures, representing approximately 78% of the payer mix for CEA and CAS procedures in 2014. TCAR is currently covered by CMS in high surgical risk patients who are symptomatic with greater than or equal to 70% stenosis. As of September 2016, TCAR is also covered by CMS in the TCAR Surveillance Project for high surgical risk patients who are either symptomatic with greater than or equal to 50% stenosis or asymptomatic with greater than or equal to 80% stenosis. We intend to seek FDA label expansion for our ENROUTE stent and CMS coverage for TCAR in standard surgical risk patients, as well as seek new and expanded coverage for TCAR in commercial payer coverage policies.

TCAR, like CAS, is only reimbursed by Medicare as an inpatient procedure and therefore reimbursed to hospitals under the DRG system.

There are three key aspects of reimbursement in the United States: coding, coverage and payment.

- ***Coding*** refers to distinct numeric and alphanumeric billing codes that are used by healthcare providers to report the provision of medical procedures and the use of supplies for specific

patients to payers. CPT codes are published by the American Medical Association and are used to report medical services and procedures performed by or under the direction of physicians. Medicare pays physicians for services based on submission of a claim using one or more specific CPT codes. Physician payment for procedures may vary according to site of service. Hospitals are reimbursed for inpatient procedures based on Medicare Severity Diagnosis Related Group, or MS-DRG classifications derived from ICD-10-CM diagnosis and ICD-10-PCS codes that describe the patient's diagnoses and procedure(s) performed during the hospital stay. MS-DRGs closely calibrate payment for groups of services based on the severity of a patient's illness. One single MS-DRG payment is intended to cover all hospital costs associated with treating an individual during his or her hospital stay, with the exception of physician charges associated with performing medical procedures, which are reimbursed through CPT codes and payments.

- ***Payment*** refers to the amount paid to providers for specific procedures and supplies. Payment is generally determined by the specific billing code. In addition, there may be separate numeric codes, under which the billing code is classified, to establish a payment amount.
- ***Coverage*** refers to decisions made by individual payers as to whether or not to pay for a specific procedure and related supplies and if so, under what conditions, including specific diagnoses and clinical indications.

Coding for Physicians

In 2014, the Society for Vascular Surgery helped to guide an editorial change by the American Medical Association to CPT 37215 to be inclusive of TCAR. The Category I CPT code for TCAR, effective January 1, 2015, is CPT 37215: *Transcatheter placement of intravascular stent(s), cervical carotid artery, open or percutaneous, including angioplasty, when performed, and radiological supervision and interpretation; with distal embolic protection*. Published CMS guidance confirms that reverse flow embolic protection systems, such as our ENROUTE NPS, qualify as distal embolic protection under this code. This code has a 90-day global period. Coverage and payment for CPT code 37215 is only available from CMS in the inpatient setting, subject to the terms of the National Coverage Determination Manual Section 20.7, and only available in facilities certified to have met CMS's minimum facility standards for performing carotid artery stenting, which include local credentialing requirements. Hospitals participating in the VQI are considered to meet CMS's minimum facility standards.

Coding for Hospitals

There are a number of appropriate ICD-10-CM diagnosis codes that describe occlusions and stenosis of carotid arteries for asymptomatic patients as well as cerebral infarction due to embolus and thrombus of carotid arteries for symptomatic patients. The proper ICD-10-PCS procedure codes for TCAR are 037H3DZ, 037J3DZ, 037K3DZ and 037L3DZ, and the appropriate MS-DRGs for TCAR are 034 when the patient presents with major complications or comorbidities, 035 when the patient presents with a complication or co-morbidity, and 036 for patients without complications or co-morbidities.

Payment for Physicians

Currently, the 2018 national average physician professional fee payment for CPT code 37215 is approximately $1,050. We believe physicians feel this level of payment represents an attractive and reasonable amount for TCAR. CEA procedures are reimbursed under CPT code 35301, for which the 2018 national average physician professional fee payment is $1,187.

Payment for Hospitals

The national unadjusted 2019 payment amounts for MS-DRGs 034, 035 and 036 are $21,992, $13,564 and $10,545 respectively. In 2019, the average payment amount across these three codes will

be $13,132. These single MS-DRG payments are intended to cover all hospital costs associated with treating an individual during his or her hospital stay, with the exception of physician charges associated with performing medical procedures. We believe that facilities feel this level of payment represents a reasonable amount for the treatment of patients with carotid artery disease. CEA procedures are reimbursed under MS-DRGs 037, 038 and 039. In 2019, the national average payment amount across these three codes will be $9,048.

Coverage

According to the Healthcare Utilization Project, CMS is the primary payer for carotid procedures, covering 78% of CEA procedures and 77% of CAS procedures in 2014. In 2015, we also confirmed with CMS that TCAR, like CAS, was considered under the purview of the National Coverage Determination, or NCD, for Percutaneous Transluminal Angioplasty. Coverage of TCAR by Medicare, Medicaid, and private third-party payers is important for our commercial development. Currently, pursuant to the NCD for Percutaneous Transluminal Angioplasty, TCAR is covered by CMS under certain circumstances for high surgical risk patients; as well as certain other instances, including participation in certain trials and studies.

Patients at high risk for adverse events from CEA are defined as having significant comorbidities or anatomic risk factors and would be poor candidates for CEA. Symptoms of carotid artery stenosis include carotid transient ischemic attack, focal cerebral ischemia producing a nondisabling stroke, and transient monocular blindness. The determination that a patient is at high risk for adverse events from CEA and the patient’s symptoms arising from carotid artery stenosis must be documented in the patient's medical records.

CMS has created a list of minimum standards modeled in part on professional society statements on competency. All facilities must at least meet CMS standards in order to receive coverage for CAS, inclusive of TCAR, for high surgical risk patients. Participation in the Society for Vascular Surgery’s Vascular Quality Initiative can provide evidence of compliance to these standards to CMS.

The TCAR Surveillance Project is an FDA-approved extension study. We understand that Medicare has reimbursed hospitals and physicians for symptomatic patients with greater than or equal to 50% carotid artery stenosis and asymptomatic high surgical risk patients with greater than or equal to 80% carotid artery stenosis who participate in the TCAR Surveillance Project. For billing purposes, facilities and providers can submit claims for the TCAR Surveillance Project using National Clinical Trial identifier NCT02850588.

ROADSTER 2 is another FDA-approved Post Approval Study. We believe that patients who meet the inclusion/exclusion criteria for ROADSTER 2 may be eligible for CMS coverage under the NCD under certain circumstances. Symptomatic patients with greater than or equal to 50% carotid artery stenosis and asymptomatic high surgical risk patients with greater than or equal to 80% carotid artery stenosis may be eligible. Providers must bill the Pre-Market Approval number assigned to the stent system by the FDA, P140026, to obtain reimbursement.

The ENROUTE NPS and the ENROUTE stent are also included in the CREST-2 Companion Registry, or C2R, but not in the CREST 2 randomized clinical trial itself. The objective of C2R is to promote the rapid initiation and completion of enrollment in the CREST-2 randomized clinical trial (clinicaltrials.gov ID NCT02089217). Patient eligibility will include standard surgical risk and high surgical risk patients with symptomatic or asymptomatic carotid artery disease. Patients will be followed for the occurrence of post-procedural complications. The primary safety and quality endpoint for C2R is the occurrence of any stroke or death within the 30-day period following the stenting procedure. The safety and quality results from C2R will guide selection of interventionists for participation in the CREST-2 randomized clinical trial. Enrollment into C2R began in 2015 and will continue until publication of the

primary results of the randomized trial. Providers can bill CMS for TCAR patients enrolled in this registry using NCT02240862.

Research, Development and Clinical Programs

Our research and development activities encompass basic research, clinical research and product development. Our engineering team has mechanical engineering, project management, materials science, and prototyping expertise. In addition, our clinical research organization has trial design and management, data collection and biostatistics expertise.

Our research and development efforts are currently focused on improving and expanding our portfolio of TCAR products and their labeled indications for use to further improve and simplify the treatment experience for a broad base of patients and physicians. We have worked together with vascular surgeons such as Enrique Criado M.D., and David Chang M.D., the pioneers of TCAR, to develop our products. We believe our research and development capabilities, clinical and regulatory organizations and unique insights will enable us to continue to lead this emerging category.

Our current clinical program consists of support for our ongoing ROADSTER 2 U.S. Post-Market approval study to evaluate TCAR outcomes in broader, “real world” use. We are also enrolling and planning studies in the European Union and United States, respectively, to evaluate the rate of sub-clinical embolization as detected through DW-MRI in recently symptomatic patients. We expect to utilize the results of these clinical studies to support our marketing efforts and encourage continued adoption of TCAR.

We also have a broad intellectual property platform addressing the transcarotid approach and, in the future, we intend to leverage our expertise to develop new products targeting market opportunities and disease states that could benefit from the physiologic and engineering advantages made possible by our transcarotid approach, including in the heart, aortic arch and brain.

For the fiscal years ended December 31, 2017 and 2018, our research, development and clinical expenses were $7.2 million and $ million, respectively.

Competition

TCAR is a relatively new procedure category and as such the basis of competition for our products is with respect to alternative carotid revascularization procedures. We are positioning TCAR as an alternative to the existing procedures CEA and CAS, and therefore compete primarily with manufacturers of medical devices used in those procedures.

The major manufacturers of products, such as patches and shunts, used in connection with CEA include LeMaitre Vascular, Getinge / Maquet, Baxter, Terumo, Gore and Edwards. Many of these companies are large public companies or divisions of publicly-traded companies and have several competitive advantages, including established relationships with vascular surgeons who commonly perform the CEA procedure, significantly greater name recognition and significantly greater sales and marketing resources.

Companies with actively marketed FDA-approved stents and embolic protection devices for use with CAS procedures include Abbott, Medtronic, Boston Scientific, and Cardinal. Other companies have approved devices not currently marketed in the United States, including Gore. Additionally, some companies have stents and other products under development for use in CAS procedures, including Terumo. Most of these companies have several competitive advantages including the following: more established sales and marketing programs and networks, larger portfolio of products, longer operating histories, established relationships with healthcare professionals and greater name recognition.

In addition to competing for market share for TCAR, we also compete against these companies for personnel, including qualified personnel that are necessary to grow our business.

We believe the principal competitive factors in our market include the following:

- patient outcomes and adverse event rates;
- patient experience;
- acceptance by treating physicians and referral sources;
- physician learning curve;
- ease-of-use and reliability;
- patient recovery time and level of discomfort;
- economic benefits and cost savings;
- availability of reimbursement; and
- strength of clinical evidence.

We also compete against manufacturers of medications used for medical management of carotid artery disease, including aspirin and statins. Many such companies are large public companies or divisions of publicly-traded companies and have several competitive advantages including the following: established treatment patterns where drugs are generally first-line therapy and invasive procedures or surgery are considered later; established relationships with general practitioners who commonly prescribe such medications; significantly greater name recognition; and significantly greater sales and marketing resources, including direct-to-consumer advertising.

Finally, we may compete with medical device and pharmaceutical manufacturers outside the United States when we pursue plans to market our products internationally. Among other competitive advantages, such companies may have more established sales and marketing programs and networks, established relationships with healthcare professionals and greater name recognition in such markets.

Intellectual Property

We actively seek to protect the intellectual property and proprietary technology that we believe is important to our business, which includes seeking and maintaining patents covering our technology and products, proprietary processes and any other inventions that are commercially or strategically important to the development of our business. We also rely upon trademarks to build and maintain the integrity of our brand, and we seek to protect the confidentiality of trade secrets that may be important to the development of our business.

To protect our proprietary rights, we rely on a combination of trademark, copyright, patent, trade secret and other intellectual property laws, employment, confidentiality and invention assignment agreements, and protective contractual provisions with our employees, contractors, consultants, suppliers, partners and other third parties.

As of December 1, 2018, we owned 47 patents globally, of which 34 were issued U.S. patents and 13 were patents outside of the United States. As of December 1, 2018, we had 40 pending patent applications globally, including 20 in the United States and 20 outside the United States. Our patents expire between November 2024 and November 2034.

As of December 1, 2018, we had trademark registrations for “Silk Road Medical,” the “Silk Road Medical” logo, “Enroute” and the “Enroute” logo and "Enhance" in the United States, and various other countries. Including these trademark registrations, our trademark portfolio contained 13 trademark registrations, six of which were U.S. trademark registrations and three pending trademark applications in United States and various other countries.

The term of individual patents depends on the legal term for patents in the countries in which they are granted. In most countries, including the United States, the patent term is generally 20 years from the earliest claimed filing date of a nonprovisional patent application in the applicable country. We cannot assure that patents will be issued from any of our pending applications or that, if patents are issued, they will be of sufficient scope or strength to provide meaningful protection for our technology. Notwithstanding the scope of the patent protection available to us, a competitor could develop treatment methods or devices that are not covered by our patents. Furthermore, numerous U.S. and foreign-issued patents and patent applications owned by third parties exist in the fields in which we are developing products. Because patent applications can take many years to issue, there may be applications unknown to us, which applications may later result in issued patents that our existing or future products or technologies may be alleged to infringe.

There has been substantial litigation regarding patent and other intellectual property rights in the medical device industry. In the future, we may need to engage in litigation to enforce patents issued or licensed to us, to protect our trade secrets or know-how, to defend against claims of infringement of the rights of others or to determine the scope and validity of the proprietary rights of others. Litigation could be costly and could divert our attention from other functions and responsibilities. Furthermore, even if our patents are found to be valid and infringed, a court may refuse to grant injunctive relief against the infringer and instead grant us monetary damages and/or ongoing royalties. Such monetary compensation may be insufficient to adequately offset the damage to our business caused by the infringer’s competition in the market.”

Adverse determinations in litigation could subject us to significant liabilities to third parties, could require us to seek licenses from third parties and could prevent us from manufacturing, selling or using the product, any of which could severely harm our business.

We also seek to maintain certain intellectual property and proprietary know-how as trade secrets, and generally require our partners to execute non-disclosure agreements prior to any substantive discussions or disclosures of our technology or business plans. Our trade secrets include proprietary account analytics, user training methods, and operational processes. For more information, please see “Risk Factors—Risks Related to Intellectual Property.”

Manufacturing and Supply

We currently manufacture the ENROUTE NPS at and distribute all of our products from our approximately 31,000 square foot facility in Sunnyvale, California. This facility provides approximately 8,000 square feet of space for our production and distribution operations, including manufacturing, quality control and storage. We believe our existing facility will be sufficient to meet our manufacturing needs for at least the next four years.

Our manufacturing and distribution operations are subject to regulatory requirements of the FDA’s Quality System Regulation, or QSR, for medical devices sold in the United States, set forth in 21 CFR part 820, and the European Medical Device Directive 93/42/EEC and amendments, or MDD, for medical devices marketed in the European Union. We are also subject to applicable local regulations relating to the environment, waste management and health and safety matters, including measures relating to the release, use, storage, treatment, transportation, discharge, disposal, sale, labeling, collection, recycling, treatment and remediation of hazardous substances.

The FDA monitors compliance with the QSR through periodic inspections of our facilities and may include our suppliers' facilities as well. Our European Union Notified Body, British Standards Institute, or BSI, monitors compliance with the MDD requirements through both annual scheduled audits and periodic unannounced audits of our manufacturing facilities as well as our contract manufacturers' facilities.

Our failure, or the failure of our suppliers, to maintain acceptable quality requirements could result in the shutdown of our manufacturing operations or the recall of our products, which would harm our business. In the event that one of our suppliers fails to maintain acceptable quality requirements, we may have to qualify a new supplier and could experience a material adverse effect to manufacturing and manufacturing delays as a result.

Our quality management system is ISO 13485 and MDD Certified. We have been an FDA registered medical device establishment and California licensed medical device manufacturer since 2011. We moved to our current Sunnyvale, California facility in June 2018, which was registered with the FDA in June 2018 and was issued a California device manufacturing license in August 2018. An ISO 13485 audit was conducted in September 2018 and our facility was recommended for certification.

The FDA conducted a total of four establishment inspections of our manufacturing facility in Sunnyvale, California in 2014, 2015 and 2016. A single Form 483 Notice of Observation was issued in April 2015 relating to a transcription error in patient line listings and no additional follow up with the FDA was required. We believe that we are in compliance, in all material respects, with all applicable FDA and QSR requirements.

Since obtaining ISO 13485 certification in 2011, BSI has conducted scheduled surveillance audits annually, recertification audits every third year, and unannounced audits once during every three-year certification period starting in 2011 for compliance with ISO 13485 and MDD. The most recent recertification audit was conducted in September 2017, and no major non-conformities were identified. The most recent surveillance audit was conducted in September 2018, and no major non-conformities were identified. The most recent unannounced audit was conducted in July 2014, and no major non-conformities were identified. We believe that we are in compliance, in all material respects, with all ISO 13485 and MDD requirements.

Manufacturing of the materials and components of the ENROUTE NPS are provided by approved suppliers, all of which are single source suppliers of key components, sub-assemblies and materials. We purchase finished transcarotid access kit, guidewires and stents through contract manufacturers. Cardinal is our contract manufacturer and currently the sole source supplier for the ENROUTE stent. We typically maintain several months' worth of ENROUTE stents in inventory, and we estimate that it would take between one and two years to qualify a second source supplier for our ENROUTE stent. The suppliers for the ENROUTE NPS and our other product lines are evaluated, qualified and approved through a stringent supplier management program, which includes various evaluations, assessments, qualifications, validations, testing and inspection to ensure the supplier can meet acceptable quality requirements. We implement a strict change control policy with our key suppliers to ensure that no component or process changes are made without our prior approval.

Order quantities and lead times for components purchased from suppliers are based on our forecasts derived from historical demand and anticipated future demand. Lead times for components may vary depending on the size of the order, time required to fabricate and test the components, specific supplier requirements and current market demand for the components, sub-assemblies and materials. We perform assembly, testing, inspection and final product release activities for the ENROUTE NPS. Finished ENROUTE NPS devices are ethylene oxide sterilized at a qualified supplier.

Government Regulation

United States Food & Drug Administration

Our products and operations are subject to extensive and ongoing regulation by the FDA under the Federal Food, Drug, and Cosmetic Act, or FDCA, and its implementing regulations, as well as other federal and state regulatory bodies in the United States. The laws and regulations govern, among other things, product design and development, pre-clinical and clinical testing, manufacturing, packaging, labeling, storage, record keeping and reporting, clearance or approval, marketing, distribution, promotion, import and export, and post-marketing surveillance.

Unless an exemption applies, each new or significantly modified medical device we seek to commercially distribute in the United States will require either a premarket notification to the FDA requesting permission for commercial distribution under Section 510(k) of the Federal Food, Drug and Cosmetic Act, or FDCA, also referred to as a 510(k) clearance, or approval from the FDA of a PMA application. Both the 510(k) clearance and PMA processes can be resource intensive, expensive, and lengthy, and require payment of significant user fees, unless an exemption is available.

Device classification

Under the FDCA, medical devices are classified into one of three classes-Class I, Class II or Class III-depending on the degree of risk associated with each medical device and the extent of control needed to provide reasonable assurances with respect to safety and effectiveness.

Class I includes devices with the lowest risk to the patient and are those for which safety and effectiveness can be reasonably assured by adherence to a set of FDA regulations, referred to as the General Controls for Medical Devices, which require compliance with the applicable portions of the QSR, facility registration and product listing, reporting of adverse events and malfunctions, and appropriate, truthful and non-misleading labeling and promotional materials. Some Class I devices, also called Class I reserved devices, also require premarket clearance by the FDA through the 510(k) premarket notification process described below. Most Class I products are exempt from the premarket notification requirements.

Class II devices are those that are subject to the General Controls, and special controls as deemed necessary by the FDA to ensure the safety and effectiveness of the device. These special controls can include performance standards, patient registries, FDA guidance documents and post-market surveillance. Most Class II devices are subject to premarket review and clearance by the FDA. Premarket review and clearance by the FDA for Class II devices is accomplished through the 510(k) premarket notification process.

Class III devices include devices deemed by the FDA to pose the greatest risk such as life-supporting or life-sustaining devices, or implantable devices, in addition to those deemed novel and not substantially equivalent following the 510(k) process. The safety and effectiveness of Class III devices cannot be reasonably assured solely by the General Controls and Special Controls described above. Therefore, these devices are subject to the PMA application process, which is generally more costly and time consuming than the 510(k) process. Through the PMA application process, the applicant must submit data and information demonstrating reasonable assurance of the safety and effectiveness of the device for its intended use to the FDA’s satisfaction. Accordingly, a PMA application typically includes, but is not limited to, extensive technical information regarding device design and development, pre-clinical and clinical trial data, manufacturing information, labeling and financial disclosure information for the clinical investigators in device studies. The PMA application must provide valid scientific evidence that demonstrates to the FDA's satisfaction a reasonable assurance of the safety and effectiveness of the device for its intended use.

The investigational device process

In the United States, absent certain limited exceptions, human clinical trials intended to support medical device clearance or approval require an IDE application. Some types of studies deemed to present "non-significant risk" are deemed to have an approved IDE once certain requirements are addressed and IRB approval is obtained. If the device presents a "significant risk" to human health, as defined by the FDA, the sponsor must submit an IDE application to the FDA and obtain IDE approval prior to commencing the human clinical trials. The IDE application must be supported by appropriate data, such as animal and laboratory testing results, showing that it is safe to test the device in humans and that the testing protocol is scientifically sound. The IDE application must be approved in advance by the FDA for a specified number of subjects. Generally, clinical trials for a significant risk device may begin once the IDE application is approved by the FDA and the study protocol and informed consent are approved by appropriate institutional review boards at the clinical trial sites. There can be no assurance that submission of an IDE will result in the ability to commence clinical trials, and although the FDA's approval of an IDE allows clinical testing to go forward for a specified number of subjects, it does not bind the FDA to accept the results of the trial as sufficient to prove the product's safety and effectiveness, even if the trial meets its intended success criteria.

All clinical trials must be conducted in accordance with the FDA's IDE regulations that govern investigational device labeling, prohibit promotion and specify an array of recordkeeping, reporting and monitoring responsibilities of study sponsors and study investigators. Clinical trials must further comply with the FDA's good clinical practice regulations for institutional review board approval and for informed consent and other human subject protections. Required records and reports are subject to inspection by the FDA. The results of clinical testing may be unfavorable, or, even if the intended safety and effectiveness success criteria are achieved, may not be considered sufficient for the FDA to grant marketing approval or clearance of a product. The commencement or completion of any clinical trial may be delayed or halted, or be inadequate to support approval of a PMA application, for numerous reasons, including, but not limited to, the following:

- the FDA or other regulatory authorities do not approve a clinical trial protocol or a clinical trial, or place a clinical trial on hold;
- patients do not enroll in clinical trials at the rate expected;
- patients do not comply with trial protocols;
- patient follow-up is not at the rate expected;
- patients experience adverse events;
- patients die during a clinical trial, even though their death may not be related to the products that are part of the trial;
- device malfunctions occur with unexpected frequency or potential adverse consequences;
- side effects or device malfunctions of similar products already in the market that change the FDA's view toward approval of new or similar PMAs or result in the imposition of new requirements or testing;
- institutional review boards and third-party clinical investigators may delay or reject the trial protocol;
- third-party clinical investigators decline to participate in a trial or do not perform a trial on the anticipated schedule or consistent with the clinical trial protocol, investigator agreement, investigational plan, good clinical practices, the IDE regulations, or other FDA or IRB requirements;

- third-party investigators are disqualified by the FDA;
- we or third-party organizations do not perform data collection, monitoring and analysis in a timely or accurate manner or consistent with the clinical trial protocol or investigational or statistical plans, or otherwise fail to comply with the IDE regulations governing responsibilities, records, and reports of sponsors of clinical investigations;
- third-party clinical investigators have significant financial interests related to us or our study such that the FDA deems the study results unreliable, or the company or investigators fail to disclose such interests;
- regulatory inspections of our clinical trials or manufacturing facilities, which may, among other things, require us to undertake corrective action or suspend or terminate our clinical trials;
- changes in government regulations or administrative actions;
- the interim or final results of the clinical trial are inconclusive or unfavorable as to safety or effectiveness; or
- the FDA concludes that our trial design is unreliable or inadequate to demonstrate safety and effectiveness.

The 510(k) approval process

Under the 510(k) process, the manufacturer must submit to the FDA a premarket notification, demonstrating that the device is "substantially equivalent," as defined in the statute, to a legally marketed predicate device.

A predicate device is a legally marketed device that is not subject to premarket approval, i.e., a device that was legally marketed prior to May 28, 1976 (pre-amendments device) and for which a PMA is not required, a device that has been reclassified from Class III to Class II or I, or a device that was previously found substantially equivalent through the 510(k) process. To be "substantially equivalent," the proposed device must have the same intended use as the predicate device, and either have the same technological characteristics as the predicate device or have different technological characteristics and not raise different questions of safety or effectiveness than the predicate device. Clinical data is sometimes required to support substantial equivalence.

After a 510(k) premarket notification is submitted, the FDA determines whether to accept it for substantive review. If it lacks necessary information for substantive review, the FDA will refuse to accept the 510(k) notification. If it is accepted for filing, the FDA begins a substantive review. By statute, the FDA is required to complete its review of a 510(k) notification within 90 days of receiving the 510(k) notification. As a practical matter, clearance often takes longer, and clearance is never assured. Although many 510(k) premarket notifications are cleared without clinical data, the FDA may require further information, including clinical data, to make a determination regarding substantial equivalence, which may significantly prolong the review process. If the FDA agrees that the device is substantially equivalent, it will grant clearance to commercially market the device.

If the FDA determines that the device is not "substantially equivalent" to a predicate device, or if the device is automatically classified into Class III, the device sponsor must then fulfill the much more rigorous premarketing requirements of the PMA approval process, or seek reclassification of the device through the de novo process. A manufacturer can also submit a petition for direct de novo review if the manufacturer is unable to identify an appropriate predicate device and the new device or new use of the device presents a moderate or low risk.

After a device receives 510(k) clearance, any modification that could significantly affect its safety or effectiveness, or that would constitute a new or major change in its intended use, will require a new 510(k) clearance or, depending on the modification, could require a PMA application or de novo classification. The FDA requires each manufacturer to determine whether the proposed change requires submission of a 510(k) or a PMA in the first instance, but the FDA can review any such decision and disagree with a manufacturer's determination. Many minor modifications are accomplished by a letter-to-file in which the manufacture documents the change in an internal letter-to-file. The letter-to-file is in lieu of submitting a new 510(k) to obtain clearance for such change. The FDA can always review these letters to file in an inspection. If the FDA disagrees with a manufacturer's determination regarding whether a new premarket submission is required for the modification of an existing device, the FDA can require the manufacturer to cease marketing and/or recall the modified device until 510(k) clearance or approval of a PMA application is obtained.

The PMA approval process

Following receipt of a PMA application, the FDA conducts an administrative review to determine whether the application is sufficiently complete to permit a substantive review. If it is not, the agency will refuse to file the PMA. If it is, the FDA will accept the application for filing and begin the review. The FDA, by statute and by regulation, has 180 days to review a filed PMA application, although the review of an application more often occurs over a significantly longer period of time. During this review period, the FDA may request additional information or clarification of information already provided, and the FDA may issue a major deficiency letter to the applicant, requesting the applicant's response to deficiencies communicated by the FDA. The FDA considers a PMA or PMA supplement to have been voluntarily withdrawn if an applicant fails to respond to an FDA request for information (e.g., major deficiency letter) within a total of 360 days. Before approving or denying a PMA, an FDA advisory committee may review the PMA at a public meeting and provide the FDA with the committee's recommendation on whether the FDA should approve the submission, approve it with specific conditions, or not approve it. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions.

Prior to approval of a PMA, the FDA may conduct inspections of the clinical trial data and clinical trial sites, as well as inspections of the manufacturing facility and processes. Overall, the FDA review of a PMA application generally takes between one and three years, but may take significantly longer. The FDA can delay, limit or deny approval of a PMA application for many reasons, including:

- the device may not be shown safe or effective to the FDA's satisfaction;
- the data from pre-clinical studies and/or clinical trials may be found unreliable or insufficient to support approval;
- the manufacturing process or facilities may not meet applicable requirements; and
- changes in FDA approval policies or adoption of new regulations may require additional data.

If the FDA evaluation of a PMA is favorable, the FDA will issue either an approval letter, or an approvable letter, the latter of which usually contains a number of conditions that must be met in order to secure final approval of the PMA. When and if those conditions have been fulfilled to the satisfaction of the FDA, the agency will issue a PMA approval letter authorizing commercial marketing of the device, subject to the conditions of approval and the limitations established in the approval letter. If the FDA's evaluation of a PMA application or manufacturing facilities is not favorable, the FDA will deny approval of the PMA or issue a not approvable letter. The FDA also may determine that additional tests or clinical trials are necessary, in which case the PMA approval may be delayed for several months or years while the trials are conducted and data is submitted in an amendment to the PMA, or the PMA is withdrawn and resubmitted when the data are available. The PMA process can be expensive, uncertain and lengthy and

a number of devices for which the FDA approval has been sought by other companies have never been approved by the FDA for marketing.

New PMA applications or PMA supplements are required for modification to the manufacturing process, equipment or facility, quality control procedures, sterilization, packaging, expiration date, labeling, device specifications, ingredients, materials or design of a device that has been approved through the PMA process. PMA supplements often require submission of the same type of information as an initial PMA application, except that the supplement is limited to information needed to support any changes from the device covered by the approved PMA application and may or may not require as extensive technical or clinical data or the convening of an advisory panel, depending on the nature of the proposed change.

In approving a PMA application, as a condition of approval, the FDA may also require some form of post-approval study or post-market surveillance, whereby the applicant conducts a follow-up study or follows certain patient groups for a number of years and makes periodic reports to the FDA on the clinical status of those patients when necessary to protect the public health or to provide additional or longer term safety and effectiveness data for the device. The FDA may also require post-market surveillance for certain devices cleared under a 510(k) notification, such as implants or life-supporting or life-sustaining devices used outside a device user facility. The FDA may also approve a PMA application with other post-approval conditions intended to ensure the safety and effectiveness of the device, such as, among other things, restrictions on labeling, promotion, sale, distribution and use.

Pervasive and Continuing Regulation

After a device is placed on the market, numerous regulatory requirements continue to apply. These include:

- the FDA's QSR, which requires manufacturers, including their suppliers, to follow stringent design, testing, control, documentation and other quality assurance procedures during all aspects of the manufacturing process;
- labeling regulations and FDA prohibitions against the promotion of products for uncleared, unapproved or off-label uses;
- medical device reporting, or MDR, regulations, which require that manufacturers report to the FDA if their device may have caused or contributed to a death or serious injury or malfunctioned in a way that would likely cause or contribute to a death or serious injury if the malfunction were to recur;
- medical device recalls, which require that manufacturers report to the FDA any recall of a medical device, provided the recall was initiated to either reduce a risk to health posed by the device, or to remedy a violation of the FDCA caused by the device that may present a risk to health; and
- post-market surveillance regulations, which apply when necessary to protect the public health or to provide additional safety and effectiveness data for the device.

We have registered with the FDA as a medical device manufacturer and have obtained a manufacturing license from the California Department of Public Health, or CDPH. The FDA and CDPH have broad post-market and regulatory enforcement powers. We are subject to unannounced inspections by the FDA and the Food and Drug Branch of CDPH to determine our compliance with the QSR and other regulations, and these inspections may include the manufacturing facilities of our suppliers. Additionally, our Notified Body, the British Standards Institution, or BSI, regularly inspects our manufacturing, design and operational facilities to ensure ongoing ISO 13485 compliance in order to maintain our CE mark.

Failure to comply with applicable regulatory requirements can result in enforcement action by the FDA, which may include any of the following sanctions:

- warning letters, fines, injunctions, consent decrees and civil penalties;
- repair, replacement, refunds, recall or seizure of our products;
- operating restrictions, partial suspension or total shutdown of production;
- refusing our requests for 510 (k) clearance or premarket approval of new products, new intended uses or modifications to existing products;
- withdrawing 510 (k) clearance or premarket approvals that have already been granted; and
- criminal prosecution.

European Union

Our portfolio of TCAR products is regulated in the European Union as a medical device per the European Union Directive 93/42/EEC, also known as the Medical Device Directive, or MDD. The MDD sets out the basic regulatory framework for medical devices in the European Union. The system of regulating medical devices operates by way of a certification for each medical device. Each certified device is marked with the CE mark which shows that the device has a Certificat de Conformité. There are national bodies known as Competent Authorities in each member state which oversee the implementation of the MDD within their jurisdiction. The means for achieving the requirements for the CE mark vary according to the nature of the device. Devices are classified in accordance with their perceived risks, similarly to the U.S. system. The class of a product determines the conformity assessment required before the CE mark can be placed on a product. Conformity assessments for our products are carried out as required by the MDD. Each member state can appoint Notified Bodies within its jurisdiction. If a Notified Body of one member state has issued a Certificat de Conformité, the device can be sold throughout the European Union without further conformance tests being required in other member states. The CE mark is contingent upon continued compliance with the applicable regulations and the quality system requirements of the ISO 13485 standard. Our current CE mark is issued by BSI.

Health Insurance Portability and Accountability Act

The Health Insurance Portability and Accountability Act of 1996, or HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, or HITECH, established federal protection for the privacy and security of health information. Under HIPAA, the Department of Health and Human Services, or HHS, has issued regulations to protect the privacy and security of protected health information used or disclosed by “Covered Entities,” including healthcare providers and their Business Associates. HIPAA also regulates standardization of data content, codes and formats used in healthcare transactions and standardization of identifiers for health plans and providers. The privacy regulations protect medical records and other protected health information by limiting their use and release, giving patients the right to access their medical records and limiting most disclosures of health information to the minimum amount necessary to accomplish an intended purpose. The HIPAA security standards require the adoption of administrative, physical, and technical safeguards and the adoption of written security policies and procedures. HIPAA requires Covered Entities to execute Business Associate Agreements with their Business Associates and subcontractors, who provide services to Covered Entities and who need access to protected health information. In addition, companies that would not otherwise be subject to HIPAA may become contractually obligated to follow HIPAA requirements through agreements with Covered Entities and Business Associates, and some of our customers may require us to agree to these provisions.

In addition HIPAA and other federal privacy regulations, such as Section 5 of the Federal Trade Commission Act, there are a number of state laws regarding the privacy and security of health information and personal data that apply to us. The compliance requirements of these laws, including additional breach reporting requirements, and the penalties for violation vary widely, and new privacy and security laws in this area are evolving. Requirements of these laws and penalties for violations vary widely.

If we or our operations are found to be in violation of HIPAA, HITECH, or their implementing regulations, we may be subject to penalties, including civil and criminal penalties, fines, and exclusion from participation in federal or state healthcare programs, and the curtailment or restructuring of our operations. HITECH increased the civil and criminal penalties that may be imposed against Covered Entities, their Business Associates and possibly other persons, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorney's fees and costs associated with pursuing federal civil actions.

U.S. Federal, State and Foreign Fraud and Abuse Laws

The federal and state governments have enacted, and actively enforce, a number of laws to address fraud and abuse in federal healthcare programs. Our business is subject to compliance with these laws.

Anti-Kickback Statutes

The federal Anti-Kickback Statute prohibits persons from knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, in exchange for or to induce either the referral of an individual, or the furnishing or arranging for a good or service, for which payment may be made under a federal healthcare program, such as Medicare or Medicaid. A person or entity does not need to have actual knowledge of the statute or specific intent to violate it to have committed a violation.

The definition of "remuneration" has been broadly interpreted to include anything of value, including, for example, gifts, certain discounts, the furnishing of free supplies, equipment or services, credit arrangements, payment of cash and waivers of payments. Several courts have interpreted the statute's intent requirement to mean that if any one purpose of an arrangement involving remuneration is to induce referrals of federal healthcare covered businesses, the statute has been violated. Violations of the federal Anti-Kickback Statute may result in civil monetary penalties up to $100,000 for each violation, plus up to three times the remuneration involved. Civil penalties for such conduct can further be assessed under the federal False Claims Act. Violations can also result in criminal penalties, including criminal fines of up to $100,000 and imprisonment of up to 10 years. Similarly, violations can result in exclusion from participation in government healthcare programs, including Medicare and Medicaid. In addition some kickback allegations have been claimed to violate the Federal False Claims Act.

The Office of Inspector General, or OIG, of the HHS has issued a series of regulations known as "safe harbors." These safe harbors set forth provisions that, if all their applicable requirements are met, will assure healthcare providers and other parties that they will not be prosecuted under the Anti-Kickback Statute. The failure of a transaction or arrangement to fit precisely within one or more safe harbors does not necessarily mean that it is illegal or that prosecution will be pursued. However, conduct and business arrangements that do not fully satisfy an applicable safe harbor may result in increased scrutiny by government enforcement authorities such as OIG.

Many states have adopted laws similar to the Anti-Kickback Statute. Some of these state prohibitions apply to referral of recipients for healthcare products or services reimbursed by any source, not only government healthcare programs, and may apply to payments made directly by the patient.

Government officials have focused their enforcement efforts on the marketing of healthcare services and products, among other activities, and recently have brought cases against companies, and certain

individual sales, marketing and executive personnel, for allegedly offering unlawful inducements to potential or existing customers in an attempt to procure their business.

Federal False Claims Act

The federal False Claims Act, or FCA, imposes liability on any person or entity that, among other things, knowingly presents, or causes to be presented, a false or fraudulent claim for payment by a federal healthcare program. The *qui tam* provisions of the FCA allow a private individual to bring actions on behalf of the federal government alleging that the defendant has violated the FCA and to share in any monetary recovery. In addition, various states have enacted false claims laws analogous to the FCA, and many of these state laws apply where a claim is submitted to any third-party payer and not only a federal healthcare program.

When an entity is determined to have violated the FCA, it may be required to pay up to three times the actual damages sustained by the government, plus civil fines and penalties ranging from $11,181 and $22,363 for each false claim. As part of any settlement, the government may require the entity to enter into a corporate integrity agreement, which imposes certain compliance, certification and reporting obligations. There are many potential bases for liability under the FCA. Liability arises, primarily, when an entity knowingly submits, or causes another to submit, a false claim for reimbursement to the federal government. The federal government has used the FCA to assert liability on the basis of kickbacks, or in instances in which manufacturers have provided billing or coding advice to providers that the government considered to be inaccurate. In these cases, the manufacturer faces liability for “causing” a false claim. In addition, the federal government has prosecuted companies under the FCA in connection with off-label promotion of products. Our activities relating to the reporting of discount and rebate information and other information affecting federal, state and third-party reimbursement of our products and the sale and marketing of our products may be subject to scrutiny under these laws.

While we are unaware of any current matters, we are unable to predict whether we will be subject to actions under the FCA or a similar state law, or the impact of such actions. However, the costs of defending such claims, as well as any sanctions imposed, could significantly affect our financial performance.

Civil Monetary Penalties

The Civil Monetary Penalty Act of 1981 imposes penalties against any person or entity that, among other things, is determined to have presented or caused to be presented a claim to a federal healthcare program that the person knows or should know is for an item or service that was not provided as claimed or is false or fraudulent, or offering or transferring remuneration to a federal healthcare beneficiary that a person knows or should know is likely to influence the beneficiary’s decision to order or receive items or services reimbursable by the government from a particular provider or supplier.

Open Payments

The Physician Payment Sunshine Act, known as “Open Payments” and enacted as part of the Affordable Care Act, requires all pharmaceutical and medical device manufacturers of products covered by Medicare, Medicaid or the Children’s Health Insurance Program to report annually to HHS: payments and transfers of value to physicians, certain other healthcare providers, and teaching hospitals, and applicable manufacturers and group purchasing organizations, to report annually ownership and investment interests held by physicians and their immediate family members. Applicable manufacturers are required to submit annual reports to CMS. Failure to submit required information may result in civil monetary penalties of $11,052 per failure up to an aggregate of $165,786 per year (or up to an aggregate of $1.105 million per year for “knowing failures”), for all payments, transfers of value or ownership or investment interests that are not timely, accurately, and completely reported in an annual submission, and may result in liability under other federal laws or regulations. We are subject to Open Payments and the

information we disclose may lead to greater scrutiny, which may result in modifications to established practices and additional costs. Additionally, similar reporting requirements have also been enacted on the state level domestically, and an increasing number of countries worldwide either have adopted or are considering similar laws requiring transparency of interactions with healthcare professionals.

Foreign Corrupt Practices Act

The Foreign Corrupt Practices Act, or FCPA, prohibits any U.S. individual or business from paying, offering, or authorizing payment or offering of anything of value, directly or indirectly, to any foreign official, political party or candidate for the purpose of influencing any act or decision of the foreign entity in order to assist the individual or business in obtaining or retaining business. The FCPA also obligates companies whose securities are listed in the United States to comply with accounting provisions requiring us to maintain books and records that accurately and fairly reflect all transactions of the corporation, including international subsidiaries, if any, and to devise and maintain an adequate system of internal accounting controls for international operations.

International Laws

In Europe, various countries have adopted anti-bribery laws providing for severe consequences in the form of criminal penalties and significant fines for individuals or companies committing a bribery offense. Violations of these anti-bribery laws, or allegations of such violations, could have a negative impact on our business, results of operations and reputation.

For instance, in the United Kingdom, under the U.K. Bribery Act 2010, a bribery occurs when a person offers, gives or promises to give a financial or other advantage to induce or reward another individual to improperly perform certain functions or activities, including any function of a public nature. Bribery of foreign public officials also falls within the scope of the U.K. Bribery Act 2010. An individual found in violation of the U.K. Bribery Act 2010, faces imprisonment of up to ten years. In addition, the individual can be subject to an unlimited fine, as can commercial organizations for failure to prevent bribery.

There are also international privacy laws that impose restrictions on the access, use, and disclosure of health information. All of these laws may impact our business. Our failure to comply with these privacy laws or significant changes in the laws restricting our ability to obtain required patient information could significantly impact our business and our future business plans.

U.S. Centers for Medicare and Medicaid Services

Medicare is a federal program administered by CMS through fiscal intermediaries and carriers. Available to individuals age 65 or over, and certain other individuals, the Medicare program provides, among other things, healthcare benefits that cover, within prescribed limits, the major costs of most medically necessary care for such individuals, subject to certain deductibles and copayments.

CMS has established guidelines for the coverage and reimbursement of certain products and procedures by Medicare. In general, in order to be reimbursed by Medicare, a healthcare procedure furnished to a Medicare beneficiary must be reasonable and necessary for the diagnosis or treatment of an illness or injury, or to improve the functioning of a malformed body part. The methodology for determining coverage status and the amount of Medicare reimbursement varies based upon, among other factors, the setting in which a Medicare beneficiary received healthcare products and services. Any changes in federal legislation, regulations and policy affecting CMS coverage and reimbursement relative to the procedure using our products could have a material effect on our performance.

CMS also administers the Medicaid program, a cooperative federal/state program that provides medical assistance benefits to qualifying low income and medically needy persons. State participation in

Medicaid is optional, and each state is given discretion in developing and administering its own Medicaid program, subject to certain federal requirements pertaining to payment levels, eligibility criteria and minimum categories of services. The coverage, method and level of reimbursement vary from state to state and is subject to each state's budget restraints. Changes to the availability of coverage, method or level of reimbursement for TCAR may affect future revenue negatively if reimbursement amounts are decreased or discontinued.

All CMS programs are subject to statutory and regulatory changes, retroactive and prospective rate adjustments, administrative rulings, interpretations of policy, intermediary determinations, and government funding restrictions, all of which may materially increase or decrease the rate of program payments to healthcare facilities and other healthcare providers, including those paid for TCAR.

United States Health Reform

Changes in healthcare policy could increase our costs and subject us to additional regulatory requirements that may interrupt commercialization of our current and future solutions. Changes in healthcare policy could increase our costs, decrease our revenue and impact sales of and reimbursement for our current and future products. The ACA substantially changes the way healthcare is financed by both governmental and private insurers, and significantly impacts our industry. The United States and some foreign jurisdictions are considering or have enacted a number of legislative and regulatory proposals to change the healthcare system in ways that could affect our ability to sell our products profitably. Among policy makers and payers in the United States and elsewhere, there is significant interest in promoting changes in healthcare systems with the stated goals of containing healthcare costs, improving quality or expanding access. Current and future legislative proposals to further reform healthcare or reduce healthcare costs may limit coverage of or lower reimbursement for the procedures associated with the use of our products. The cost containment measures that payers and providers are instituting and the effect of any healthcare reform initiative implemented in the future could impact our revenue from the sale of our products.

The implementation of the Affordable Care Act in the United States, for example, has changed healthcare financing and delivery by both governmental and private insurers substantially, and affected medical device manufacturers significantly. The Affordable Care Act imposed, among other things, a 2.3% federal excise tax, with limited exceptions, on any entity that manufactures or imports Class I, II and III medical devices offered for sale in the United States that began on January 1, 2013. Through a series of legislative amendments, the tax was suspended for 2016 through 2019. Absent further legislative action, the device excise tax will be reinstated on medical device sales starting January 1, 2020. The Affordable Care Act also provided incentives to programs that increase the federal government's comparative effectiveness research, and implemented payment system reforms including a national pilot program on payment bundling to encourage hospitals, physicians and other providers to improve the coordination, quality and efficiency of certain healthcare services through bundled payment models. Additionally, the Affordable Care Act has expanded eligibility criteria for Medicaid programs and created a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research. We do not yet know the full impact that the Affordable Care Act will have on our business. There have been judicial and Congressional challenges to certain aspects of the Affordable Care Act, and we expect additional challenges and amendments in the future. Moreover, the Trump Administration and the U.S. Congress may take further action regarding the Affordable Care Act, including, but not limited to, repeal or replacement. Most recently, the Tax Cuts and Jobs Acts was enacted, which, among other things, removes penalties for not complying with the individual mandate to carry health insurance, beginning in 2019.

In addition, other legislative changes have been proposed and adopted since the Affordable Care Act was enacted. For example, the Budget Control Act of 2011, among other things, included reductions to CMS payments to providers of 2% per fiscal year, which went into effect on April 1, 2013 and, due to

subsequent legislative amendments to the statute, will remain in effect through 2027 unless additional Congressional action is taken. Additionally, the American Taxpayer Relief Act of 2012, among other things, reduced CMS payments to several providers, including hospitals, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years.

We believe that there will continue to be proposals by legislators at both the federal and state levels, regulators and third-party payers to reduce costs while expanding individual healthcare benefits. Certain of these changes could impose additional limitations on the rates we will be able to charge for our current and future products or the amounts of reimbursement available for our current and future products from governmental agencies or third-party payers. Current and future healthcare reform legislation and policies could have a material adverse effect on our business and financial condition.

Employees

As of December 1, 2018, we had 169 full-time employees. We believe that the success of our business will depend, in part, on our ability to attract and retain qualified personnel. None of our employees are represented by a labor union or are a party to a collective bargaining agreement and we believe that our employee relations are good.

Facilities

We currently lease approximately 31,000 square feet for our corporate headquarters and manufacturing facility located in Sunnyvale, California under a lease agreement which terminates in 2024. We believe that this facility is sufficient to meet our current and anticipated needs in the near term and that additional space can be obtained on commercially reasonable terms as needed.

Legal Proceedings

We are not currently a party to any material legal proceedings. From time to time we may be involved in legal proceedings or investigations, which could have an adverse impact on our reputation, business and financial condition and divert the attention of our management from the operation of our business.

MANAGEMENT

Executive Officers and Directors

The following table sets forth information, as of September 30, 2018, regarding our executive officers and directors.

Name	Age	Title
Executive Officers		
Erica J. Rogers		President, Chief Executive Officer and Director
Lucas W. Buchanan		Chief Financial Officer
Andrew S. Davis		Executive Vice President of Global Sales and Marketing
Non-Employee Directors		
Ruoxi Chen[(1)(2)]		Director
Tony M. Chou, M.D.		Director
Jack W. Lasersohn[(2)]		Director
Robert E. Mittendorff, M.D.[(1)]		Director
Annette Rodriguez-Ferrer		Director
Elizabeth H. Weatherman[(2)]		Director
Donald J. Zurbay[(1)]		Director

(1) Member of the audit committee.
(2) Member of the compensation committee.

Executive Officers

Erica J. Rogers. Ms. Rogers has served as our President and Chief Executive Officer and a member of our board of directors since October 2012. Ms. Rogers previously served as Chief Operating Officer of Medicines360, a non-profit pharmaceutical company developing drugs and devices for women from June 2010 to October 2012. Ms. Rogers was an Executive Vice President at Nanosys, Inc. from December 2008 to March 2010. Prior to that, Ms. Rogers founded and was Chief Executive Officer of Allux Medical, and co-founded Visiogen, which was acquired by Abbott Medical Optics in 2009. She worked previously in neurovascular marketing at Target Therapeutics and peripheral vascular sales and sales training at Boston Scientific. Ms. Rogers received a B.S. in zoology from San Diego State University.

We believe Ms. Rogers' management experience in the medical device industry, her experience in founding and building medical device companies and her extensive understanding of our business, operations, and strategy qualify her to serve on our board of directors.

***Lucas W. Buchanan*.** Mr. Buchanan has served as our Chief Financial Officer since July 2016 and since August 2009 has held multiple roles including Executive Vice President, Commercialization and Corporate Development and Vice President, Marketing and Business Development. From May 2013 to May 2014, Mr. Buchanan was a Senior Director of Strategy and Corporate Development at Impax Laboratories. From 2009 to 2011, Mr. Buchanan was part of our early team while employed at The Vertical Group, a venture capital firm and the founder of our company. He previously worked at Medtronic and at Ernst & Young Corporate Finance LLC. Mr. Buchanan received a B.A. in economics from Duke University and an M.B.A. in health care management from The Wharton School at the University of Pennsylvania.

Andrew S. Davis. Mr. Davis joined us in May 2015 as our Executive Vice President of Global Sales and Marketing. From September 2014 to May 2015, Mr. Davis was Vice President of Sales and Marketing for U.S. and Canada in the Advanced Wound Therapy Group of Acelity. Mr. Davis previously held various leadership positions at Medtronic from 1999 until September 2014, where he most recently served as U.S. Vice President of Sales for CoreValve catheter-based therapies and prior to that U.S. Vice President of Sales for Endovascular. Prior to Medtronic, Mr. Davis worked in sales at Boston Scientific. Mr. Davis received a B.S. in political science from Florida State University.

Non-Employee Directors

Ruoxi Chen. Mr. Chen has served as a member of our board of directors since August 2016. Since August 2011 Mr. Chen has been employed at Warburg Pincus, where he is currently a Principal, focusing on healthcare and consumer investments. Mr. Chen previously worked as an Associate at The Carlyle Group from 2007 to 2009 and in investment banking at Citigroup Global Markets from 2005 to 2007. Mr. Chen received a B.S. in economics and computer science from Duke University and an M.B.A. from Harvard Business School.

We believe Mr. Chen is qualified to serve on our board of directors due to his extensive experience as a private equity investor in healthcare and medical device companies.

Tony M. Chou, M.D. Dr. Chou has served as a member of our board of directors since March 2007. Dr. Chou has been a general partner at The Vertical Group, a healthcare-focused venture capital firm, since August 2006. After joining The Vertical Group, Dr. Chou co-founded our company in 2007 and served as Chief Executive Officer until November 2010. Prior to that, Dr. Chou had general management and business development responsibilities in the Abbott Vascular Division of Abbott Laboratories and last served as Division Vice President and General Manager of vascular closure, managing the FDA approval and global launch of the Perclose and Starclose products. Dr. Chou was previously the Director of the Adult Cardiac Catheterization Laboratory at the University of California, San Francisco, where he is currently Associate Professor of Medicine. Dr. Chou received a B.S. in physics and electrical engineering from Carnegie Mellon University and an M.D. from Case Western Reserve University.

We believe Dr. Chou is qualified to serve on our board of directors due to his role as a co-founder of our company, background as a practicing physician and professor of medicine, experience in the medical device industry and extensive knowledge of our business.

Jack W. Lasersohn, J.D. Mr. Lasersohn has served as a member of our Board since April 2007. Since 1988, Mr. Lasersohn has been a general partner, or a principal of the general partner, of The Vertical Group, L.P., a private venture capital firm that is focused on the fields of medical technology and biotechnology. The Vertical Group was a co-founder of our company. Prior to joining The Vertical Group's predecessor, F. Eberstadt, in 1981, Mr. Lasersohn was a corporate attorney with Cravath, Swaine & Moore LLP. Mr. Lasersohn served on the board of directors of Masimo Corporation, a publicly traded global medical technology company, from January 1995 to 2017 and has served on the board of directors of OncoMed Pharmaceuticals, Inc., a publicly traded clinical development-stage biopharmaceutical company, since July 2005. He also serves on the boards of a number of private medical device and biotechnology companies. Mr. Lasersohn is the past Chairman of the Medical Industry Group of the National Venture Capital Association, or NVCA, and previously served on the Executive Committee of the board of directors of the NVCA. Mr. Lasersohn has also served, by appointment, on various committees advising the U.S. Food and Drug Administration and the Center for Medicare and Medicaid Services. He holds a B.S. in physics from Tufts University, an M.A. from The Fletcher School of Law and Diplomacy, and a J.D. from Yale Law School.

We believe Mr. Lasersohn is qualified to serve on our board of directors due to his extensive experience as a venture capital investor and as a member of the boards of directors of multiple public and private medical device and biotechnology companies.

Robert E. Mittendorff, M.D. Dr. Mittendorff has served on our board of directors since July 2017. Dr. Mittendorff has been a partner at Norwest Venture Partners since February 2012. Dr. Mittendorff was previously the VP of Marketing and Business Development at Hansen Medical, Inc. Dr. Mittendorff currently serves on the board of directors of several private companies and is also a board certified emergency physician. Dr. Mittendorff received a B.S. in biomedical engineering from Johns Hopkins University, an M.D. from Harvard Medical School and an M.B.A. from Harvard Business School.

We believe Dr. Mittendorff is qualified to serve on our board of directors due to his background as a practicing physician, extensive experience as an investor and his role as a board member of several medical device companies.

Annette Rodriguez-Ferrer. Ms. Rodriguez-Ferrer joined our board in June 2018. Since August 2008, Ms. Rodriguez-Ferrer has been employed, and since January 2017 has been a Managing Director, at Warburg Pincus, where she leads the firm's consumer and retail efforts in North America. Ms. Rodriguez-Ferrer previously worked at JPMorgan Partners (now known as CCMP Capital), the private equity arm of J.P. Morgan, as a Generalist. Ms. Rodriguez-Ferrer currently serves on the board of directors of several private companies. She received a B.S. magna cum laude in economics with concentrations in finance and accounting from the Wharton School at the University of Pennsylvania and an M.B.A. with distinction from Harvard Business School.

We believe that Ms. Rodriguez-Ferrer is qualified to serve on our board of directors due to her extensive experience as a private equity investor and as a director of companies in the medical device industry.

Elizabeth H. Weatherman. Ms. Weatherman has served on our board of directors since April 2013. Ms. Weatherman has been a Special Limited Partner of Warburg Pincus since January 2016. Ms. Weatherman previously was a Managing Director of Warburg Pincus and a member of the firm's Executive Management Group. Ms. Weatherman joined Warburg Pincus in 1988 and led the firm's Healthcare Group from 2008 to 2015. Ms. Weatherman serves on the board of directors of Wright Medical Group, N.V., and Vapotherm Inc., both publicly traded medical device companies. She serves on the Advisory Council of the Stanford Graduate School of Business, and on the board of trustees of Mount Holyoke College and Saint Ann's School in Brooklyn, NY. Ms. Weatherman received a B.A. from Mount Holyoke College and an M.B.A. from the Stanford Graduate School of Business.

We believe that Ms. Weatherman is qualified to serve on our board of directors due to her extensive experience as a private equity investor and a director of public companies in the medical device industry.

Donald J. Zurbay. Mr. Zurbay has served on our board of directors since March 2018. Mr. Zurbay has been Chief Financial Officer of Patterson Companies, Inc., a publicly traded global medical device company, since June 2018. From March 2004 to February 2017, Mr. Zurbay held various leadership positions at St. Jude Medical, Inc., where he most recently served as Vice President and Chief Financial Officer from August 2012 to January 2017. Mr. Zurbay previously worked at PricewaterhouseCoopers as an Assurance and Business Advisory Services Senior Manager. Prior to PricewaterhouseCoopers, he was a General Accounting Manager at The Valspar Corporation. Prior to The Valspar Corporation, Mr. Zurbay was an auditor at Deloitte & Touche. Mr. Zurbay is a member of the American Institute of Certified Accountants and the Minnesota Society of Certified Public Accountants. Mr. Zurbay received a B.S. in business with an emphasis in accounting from the University of Minnesota.

We believe that Mr. Zurbay is qualified to serve on our board of directors due to his current and prior experience at leading publicly traded healthcare companies, including as a Chief Financial Officer, and his financial experience and expertise.

Executive Officers

Each of our executive officers serves at the discretion of our board of directors and holds office until his or her successor is duly elected and qualified or until his or her earlier resignation or removal.

Board of Directors

Our business is managed under the direction of our board of directors, which currently consists of eight directors. Our directors hold office until the earlier of their death, resignation, removal or disqualification, or until their successors have been elected and qualified. We currently do not have a chair of our board of directors. Our board of directors does not have a formal policy on whether the roles of chief executive officer and chair of our board of directors should be separate. Prior to the completion of this offering, the members of our board of directors were elected in compliance with the provisions of our amended and restated certificate of incorporation and a stockholders agreement among certain of our stockholders, and, under the terms of such stockholders agreement, the stockholders who are party to the stockholders agreement have agreed to vote their respective shares to elect: (1) one director who is our then-current Chief Executive Officer, currently Erica J. Rogers; (2) two directors designated by the holders of the Series A preferred stock, currently Tony M. Chou and Jack W. Lasersohn; (3) three directors designated by the holders of the Series B preferred stock, currently Annette Rodriguez-Ferrer, Ruoxi Chen, and Donald Zurbay; and (4) two directors designated by the holders of the Series C preferred stock (one of whom shall be designated by Norwest subject to their ownership of at least 50% of the shares of Series C preferred stock purchased by them pursuant to the Series C Preferred Stock Purchase Agreement), currently Dr. Robert E. Mittendorff and Elizabeth H. Weatherman. Dr. Chou and Mr. Lasersohn were designated and appointed as directors by the Vertical Group; Mr. Chen, Ms. Rodriguez-Ferrer and Ms. Weatherman were appointed as directors by Warburg; and Dr. Mittendorff was appointed as a director by Norwest.

Upon completion of the offering, and for as long as Warburg and Vertical, respectively, own at least ten percent (10%) of our issued and outstanding common stock, we will nominate and use commercially reasonable efforts (including, without limitation, soliciting proxies for each designee of Warburg and Vertical to the same extent we do so for any of its other nominees to the board of directors) to have such number of individuals designated by each of Warburg and Vertical, respectively, elected to the board of directors so that the number of individuals designated by Warburg and Vertical, respectively, for election to the board of directors as compared to the size of the board of directors is proportionate to the number of shares of issued and outstanding common stock then owned by Warburg and Vertical, respectively, as compared to the number of shares of issued and outstanding common stock at such time; provided, however, that as long as each of Warburg and Vertical, respectively, own at least ten percent (10%) of the issued and outstanding common stock, each of Warburg and Vertical has the right to designate at least one (1) individual for election to our board of directors.

Upon the completion of this offering, our board of directors will be divided into three classes with staggered three-year terms. Our first annual meeting of stockholders will be in 2020. At each annual meeting of stockholders, the successors to directors whose terms then expire will be elected to serve from the time of election and qualification until the third annual meeting following election or until their earlier death, resignation or removal. Our directors will be divided among the three classes as follows:

- Class I directors will be , and their terms will expire at our annual meeting of stockholders to be held in 2020;
- Class II directors will be , and their terms will expire at our annual meeting of stockholders to be held in 2021; and
- Class III directors will be , and their terms will expire at our annual meeting of stockholders to be held in 2022.

This classification of the board of directors, together with the ability of the stockholders to remove our directors only for cause and the inability of stockholders to call special meetings, may have the effect of delaying or preventing a change in control or management. See "Description of Capital Stock—Anti-Takeover Effects or Provisions of our Amended and Restated Certificate of Incorporation, our Amended and Restated Bylaws and Delaware Law" for a discussion of other anti-takeover provisions that will be included in our amended and restated certificate of incorporation that will become effective prior to the completion of this offering.

Director Independence

In connection with this offering, we intend to have our common stock quoted on The NASDAQ Stock Market. Under the rules of The NASDAQ Stock Market, independent directors must comprise a majority of a listed company's board of directors within a specified period of time after listing on The NASDAQ Stock Market. Under NASDAQ Listing Rule 5605(a)(2), a director will qualify as an "independent director" only if, in the opinion of the company's board of directors, that person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director.

Our board of directors has reviewed the independence of each director and determined that Dr. Chou, Mr. Lasersohn, Dr. Mittendorff, Ms. Weatherman and Mr. Zurbay are independent directors under the rules of The NASDAQ Stock Market. Our board of directors will review the independence of each director at least annually. During these reviews, the board of directors will consider transactions and relationships between each director, and his or her immediate family and affiliates, and our company and its management to determine whether any such transactions or relationships are inconsistent with a determination that the director is independent. This review will be based primarily on responses of the directors to questions in a directors' and officers' questionnaire regarding employment, business, familial, compensation and other relationships with our company including its management.

In addition, the rules of The NASDAQ Stock Market require that, subject to specified exceptions, each member of a listed company's audit, compensation, and nominating and governance committees be independent. In order to be considered independent for purposes of Rule 10A-3 under the Exchange Act, a member of an audit committee of a listed company may not, other than in his or her capacity as a member of the audit committee, the board of directors, or any other board committee: (i) accept, directly or indirectly, any consulting, advisory, or other compensatory fee from the listed company or any of its subsidiaries; or (ii) be an affiliated person of the listed company or any of its subsidiaries. Members of the compensation committee must also satisfy additional independence requirements set forth in NASDAQ Listing Rule 5605(d)(2). In order to be considered independent for purposes of NASDAQ Listing Rule 5605(d)(2), a member of a compensation committee of a listed company may not, other than in his or her capacity as a member of the compensation committee, the board of directors, or any other board committee, accept, directly or indirectly, any consulting, advisory or other compensatory fee from the listed company or any of its subsidiaries. Additionally, the board of directors of the listed company must consider whether the compensation committee member is an affiliated person of the listed company or any of its subsidiaries and, if so, must determine whether such affiliation would impair the director's judgment as a member of the compensation committee.

We believe that the composition of our board of directors meets the requirements for independence under the current requirements of The NASDAQ Stock Market. As required by The NASDAQ Stock Market, we anticipate that our independent directors will meet in regularly scheduled executive sessions at which only independent directors are present. We intend to comply with future governance requirements to the extent they become applicable to us.

Corporate Governance

We believe that good corporate governance is important to ensure that, as a public company, we will be managed for the long-term benefit of our stockholders. In preparation for the offering being made by

this prospectus, we and our board of directors have been reviewing the corporate governance policies and practices of other public companies, as well as those suggested by various authorities in corporate governance. We have also considered the provisions of the Sarbanes-Oxley Act and the rules of the SEC and The NASDAQ Stock Market.

Based on this review, our board of directors has taken steps to implement many of these provisions and rules. In particular, we expect our board of directors to approve charters for the audit committee and compensation committee, as well as a code of business conduct and ethics applicable to all of our directors, officers and employees. We expect the board of directors to approve the charters for all three committees prior to the effectiveness of this registration statement.

Board Committees

Our board of directors has established a standing audit committee and a compensation committee. Our board of directors has assessed the independence of the members of each of these standing committees as defined under the rules of The NASDAQ Stock Market and, in the case of the audit committee, the independence requirements of Rule 10A-3 under the Securities Exchange Act of 1934, as amended, or Exchange Act.

Audit Committee

Dr. Mittendorff and Messrs. Chen and Zurbay serve on our audit committee. Mr. Zurbay serves as the chair of the audit committee. Our board of directors has determined that Mr. Zurbay meets the independence and experience requirements applicable to audit committee members under the rules of The NASDAQ Stock Market and the SEC and that Mr. Zurbay is an “audit committee financial expert” as defined under applicable rules of the SEC. Our board of directors has assessed whether all members of the audit committee meet the composition requirements of The NASDAQ Stock Market, including the requirements regarding financial literacy and financial sophistication. Our board of directors found that Dr. Mittendorff and Messrs. Chen and Zurbay have met the financial literacy and financial sophistication requirements under SEC and The NASDAQ Stock Market rules. Mr. Chen is currently not considered to be an independent audit committee member within the meaning of applicable SEC and NASDAQ rules and our board has determined to keep him on the audit committee based on his qualifications and experience. Until we locate a suitable replacement for Mr. Chen, we plan to relay on SEC and NASDAQ rules for phasing in new independent audit committee members. The audit committee’s primary responsibilities include:

- appointing, approving the compensation of, and assessing the qualifications and independence of our independent registered public accounting firm, which currently is PricewaterhouseCoopers LLP;
- reviewing and discussing with management and our independent registered public accounting firm our annual and quarterly financial statements and related disclosures;
- preparing the audit committee report required by SEC rules to be included in our annual proxy statements;
- monitoring our internal control over financial reporting, disclosure controls and procedures;
- reviewing our risk management status;
- establishing policies regarding hiring employees from our independent registered public accounting firm and procedures for the receipt and retention of accounting related complaints and concerns;
- meeting independently with our independent registered public accounting firm and management; and

- monitoring compliance with the code of business conduct and ethics for financial management.

All audit and non-audit services must be approved in advance by the audit committee. Our board of directors expects to adopt a written charter for the audit committee, which will be available on our website upon the completion of this offering.

Compensation Committee

Ms. Weatherman and Messrs. Chen and Lasersohn serve on our compensation committee. Mr. Lasersohn serves as the chair of the compensation committee. Mr. Chen is not currently considered to be independent and our board has determined to keep Mr. Chen on the compensation committee in reliance on NASDAQ Rule 5605(d)(2)(B). The compensation committee's responsibilities include:

- annually reviewing and approving corporate goals and objectives relevant to compensation of our chief executive officer and our other executive officers;
- annually reviewing and making recommendations to our board of directors with respect to the compensation of our chief executive officer and determining the compensation for our other executive officers;
- reviewing and making recommendations to our board of directors with respect to director compensation; and
- overseeing and administering our equity incentive plans.

Our chief executive officer and our vice president of human resources make compensation recommendations for our other executive officers and initially proposes the corporate and departmental performance objectives under our Executive Incentive Compensation Plan to the compensation committee. From time to time, our compensation committee may use outside compensation consultants to assist it in analyzing our compensation programs and in determining appropriate levels of compensation and benefits. For example, in the fourth quarter of 2018, we engaged Compensia, Inc., to advise us on compensation philosophy as we transition towards becoming a publicly-traded company, selection of a group of peer companies to use for compensation benchmarking purposes and cash and equity compensation levels for our directors, executives and other employees based on current market practices. Our board of directors expects to adopt a written charter for the compensation committee, which will be available on our website upon the completion of this offering.

Nominating and Corporate Governance Committee

Our board of directors does not currently have a nominating and corporate governance committee or other committee performing a similar function nor do we have any formal written policies outlining the factors and process relating to the selection of nominees for consideration for membership on our board of directors by our directors or our stockholders. Our board of directors has adopted resolutions in accordance with the rules of The NASDAQ Stock Market authorizing a majority of our independent members to recommend qualified director nominees for consideration by the board of directors. Our board of directors believes that it is appropriate for us to not have a standing nominating and corporate governance committee because of a number of factors, including the number of independent members who want to participate in consideration of candidates for membership on our board of directors and in matters that relate to the corporate governance of our company. Our board of directors consists of eight members, six of whom are independent. Our board of directors considered forming a nominating and corporate governance committee consisting of several of the independent members of our board of directors. Forming a committee consisting of less than all of the independent members was unattractive because it would have omitted the other independent members of our board of directors who wanted to participate in considering qualified candidates for board membership and to have input on corporate governance matters related to our company. Since our board of directors desired the participation in the

nominations process of all of its independent directors, it therefore decided not to form a nominating and corporate governance committee and instead authorized a majority of the independent members of our board of directors to make and consider nominations for membership to our board of directors. The independent members of our board of directors do not have a nominating and corporate governance committee charter, but act pursuant to board of director resolutions as described above. Each of the members of our board of directors authorized to recommend director nominees is independent within the meaning of the current "independent director" standards established by The NASDAQ Stock Market rules. Our board of directors intends to review this matter periodically, and may in the future elect to designate a formal nominating and corporate governance committee.

Code of Business Conduct and Ethics

Our board of directors expects to adopt a new code of business conduct and ethics that applies to all of our employees, officers and directors, including those officers responsible for financial reporting. Following the completion of this offering, our code of business conduct and ethics will be available on our website at www.silkroadmed.com. We intend to disclose any amendments to the code, or any waivers of its requirements, on our website to the extent required by the applicable rules and exchange requirements. The inclusion of our website address in this prospectus does not incorporate by reference into this prospectus the information on or accessible through our website.

Limitation on Liability and Indemnification Matters

Our board of directors expects to adopt an amended and restated certificate of incorporation, which will become effective prior to the completion of this offering, contains provisions that limit the liability of our directors for monetary damages to the fullest extent permitted by Delaware law. Consequently, our directors will not be personally liable to us or our stockholders for monetary damages for any breach of fiduciary duties as directors, except liability for:

- any breach of the director's duty of loyalty to us or our stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases or redemptions as provided in Section 174 of the Delaware General Corporation Law; or
- any transaction from which the director derived an improper personal benefit.

Our board of directors expects to adopt an amended and restated certificate of incorporation and amended and restated bylaws, which will become effective prior to the completion of this offering, and will provide that we are required to indemnify our directors and officers, in each case to the fullest extent permitted by Delaware law. Our amended and restated bylaws also provide that we are obligated to advance expenses incurred by a director or officer in advance of the final disposition of any action or proceeding, and permit us to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in that capacity regardless of whether we would otherwise be permitted to indemnify him or her under Delaware law. We have entered, and expect to continue to enter, into agreements to indemnify our directors, executive officers and other employees as determined by our board of directors. With specified exceptions, these agreements provide for indemnification for related expenses including, among other things, attorneys' fees, judgments, fines and settlement amounts incurred by any of these individuals in any action or proceeding. We believe that these bylaw provisions and indemnification agreements are necessary to attract and retain qualified persons as directors and officers. We also maintain directors' and officers' liability insurance.

The limitation of liability and indemnification provisions in our amended and restated certificate of incorporation and amended and restated bylaws may discourage stockholders from bringing a lawsuit

against our directors and officers for breach of their fiduciary duty. They may also reduce the likelihood of derivative litigation against our directors and officers, even though an action, if successful, might benefit us and our stockholders. Further, a stockholder's investment may be adversely affected to the extent that we pay the costs of settlement and damages.

Compensation Committee Interlocks and Insider Participation

None of our executive officers serves as a member of the board of directors or compensation committee, or other committee serving an equivalent function, of any other entity that has one or more of its executive officers serving as a member of our board of directors or its compensation committee. None of the current members of the compensation committee of our board of directors has been one of our employees within the past five years.

Director Compensation

Prior to the completion of this offering, except for Donald Zurbay, non-employee members of our board of directors did not receive any cash compensation for service on our board of directors or committees, including attending board and committee meetings. However, we did reimburse our non-employee directors for travel, lodging and other reasonable expenses incurred in attending board, committee and other company related meetings. In addition, from time to time we have granted stock options to some of our directors.

The following table sets forth a summary of the compensation received by our directors that are not also employees of our company during our fiscal year ended December 31, 2017:

Name	Fees Earned or Paid in Cash ($)	Option Awards ($)	Total ($)
Donald Zurbay	$	$	$

Directors who are also our employees receive no additional compensation for their service as directors. During 2017, Erica J. Rogers, who is one of our directors, was also an employee of our company. See "Executive Compensation—Summary Compensation Table" for additional information about the compensation for Ms. Rogers.

Outside Director Compensation Policy

After the completion of this offering, each non-employee director will be eligible to receive compensation for his or her service consisting of annual cash retainers and equity awards. Our board of directors will have the discretion to revise non-employee director compensation as it deems necessary or appropriate.

Cash Compensation. All non-employee directors will be entitled to receive the following cash compensation for their services following the completion of this offering:

- $ per year for services as a board member;
- $ per year additionally for service as chairman of the board of directors;
- $ per year additionally for service as lead outside director;
- $ per year additionally for service as chairman of the audit committee;
- $ per year additionally for service as an audit committee member;

- $ per year additionally for service as chairman of the compensation committee;
- $ per year additionally for service as a compensation committee member;
- $ per year additionally for service as chairman of the nominating and corporate governance committee;
- $ per year additionally for service as a nominating and corporate governance committee member;

Each annual cash retainer and additional annual fee will be paid quarterly in arrears on a prorated basis.

Equity Compensation. Non-employee directors will be entitled to receive all types of awards (except incentive stock options) under the 2019 Equity Incentive Plan, or the 2019 Plan (or the applicable equity plan in place at the time of grant), including discretionary awards not covered under the outside director compensation policy. Following the completion of this offering, nondiscretionary, automatic grants of restricted stock units will be made to our non-employee directors as follows:

- *Initial* RSU Grant. Each person who first becomes a non-employee director after the completion of this offering will be granted an award of restricted stock units with a value of $ or an Initial RSU Grant.
- *Annual* RSU Grant. Each non-employee director will be granted an award of restricted stock units with a value of $ on the date of each annual meeting of our company's stockholders, or an Annual Meeting, beginning with the 2020 Annual Meeting.

The "value" for the equity compensation described above means the grant date fair value (determined in accordance with U.S. generally accepted accounting principles) of the shares subject to the award.

Subject to the applicable provisions of the Plan as further described under the section titled "Employee Benefit and Stock Plans," (i) each Initial RSU Grant will be scheduled to vest as to one-third of the shares subject to such Initial RSU Grant on each annual anniversary of the date the applicable non-employee's service as a non-employee director commenced, subject to the non-employee director continuing to provide services to the Company through the applicable vesting date, (ii) each Annual RSU will be scheduled to vest on the earlier of (a) the annual anniversary of the date of grant of such Annual RSU Grant, or (b) the day immediately prior to the Annual Meeting next following the date the Annual RSU is granted, provided that for either (a) or (b), the non-employee director has remained in continuous service with the Company through the applicable vesting date, and (iii) each Initial RSU Grant and Annual RSU Grant will fully vest if the company experiences a merger or change in control; provided that the non-employee director has remained in continuous service with the Company through such date.

Pursuant to our outside director compensation policy, no non-employee director may be issued, in any fiscal year, cash compensation and equity awards with an aggregate value greater than $. Any cash compensation paid or equity awards granted to an individual for his or her services as an employee, for his or her services as a consultant (other than as a non-employee director), will not count for purposes of this limitation.

EXECUTIVE COMPENSATION

Summary Compensation Table

This discussion contains forward looking statements that are based on our current plans, considerations, expectations and determinations regarding future compensation programs. Actual compensation programs that we adopt may differ materially from currently planned programs as summarized in this discussion. As an “emerging growth company” as defined in the JOBS Act, we are not required to include a Compensation Discussion and Analysis section and have elected to comply with the scaled disclosure requirements applicable to emerging growth companies.

The following table provides information regarding the total compensation for services rendered in all capacities that was earned by our principal executive officer and our two other most highly compensated executive officers who were serving as executive officers as of December 31, 2017. These individuals were our named executive officers for 2017.

Name and Principal Position	Year	Salary ($)	Bonus ($)[1]	Stock Awards ($)	Option Awards ($)[2]	Non-Equity Incentive Plan Compensation ($)[3]	Non-Qualified Deferred Compensation Earnings ($)	All Other Compensation ($)	Total ($)
Erica J. Rogers	2017	$ 390,000	$ 112,500	$ —	$ 4,907,000	$ 140,400	$ —		$ 5,549,900
President, Chief Executive Officer and Director									
Lucas W. Buchanan	2017	350,000	82,000		1,130,469	126,000			1,688,469
Chief Financial Officer									
Andrew S. Davis	2017	415,000	108,900		568,750	149,400			1,242,050
Executive Vice President, Global Sales and Marketing									

(1) Amounts reflect a year-end discretionary bonus paid on January 31, 2018.
(2) The amounts reported represent the aggregate grant-date fair value of the stock options awarded to the named executive officers in 2017, calculated in accordance with ASC Topic 718. Such grant-date fair value does not take into account any estimated forfeitures related to service-vesting conditions. The assumptions used in calculating the grant-date fair value of the options reported in this column are set forth in “Management’s Discussion and Analysis of Financial Condition and Results of Operations-Critical Accounting Policies and Estimates-Stock-Based Compensation.”
(3) Bonus amounts for 2017 for all named executive officers were paid on January 31, 2018, pursuant to our 2017 Bonus Plan, as described in the section below titled “Executive Compensation--Non-Equity Incentive Plan Compensation.”

Non-Equity Incentive Plan Compensation

We provide each of our named executive officers an opportunity to receive formula-based incentive payments. The payments are based on a target incentive amount for each named executive officer.

Non-Equity Incentive Payments for 2017

For 2017, the target incentive amount and year-end payments for Erica J. Rogers, Lucas W. Buchanan and Andrew S. Davis under our 2017 Bonus Plan were as follows:

Named Executive Officer	Target Award ($)	Actual Award Amount ($)
Erica J. Rogers	$ 117,000	$ 140,400
Lucas W. Buchanan	105,000	126,000
Andrew S. Davis	124,500	149,400

The 2017 Bonus Plan provided for non-equity incentive compensation based upon our achievement of performance goals for 2017. The actual target incentive payments were weighted 100% toward achievement of Company goals which included achieving revenue targets, new account opening goals, threshold reorder rates, physician training goals, clinical outcome targets in ROADSTER 2, and product development goals.

In 2017, the board of directors granted Erica J. Rogers, Lucas W. Buchanan and Andrew S. Davis discretionary bonuses of $112,500, $82,000 and $108,900, respectively, to recognize their efforts in 2016 to exceed Company goals, maintain high customer satisfaction, expand the U.S. sales organization, and significantly increase manufacturing capacity.

Pension Benefits and Nonqualified Deferred Compensation

We do not provide a pension plan for our employees, and none of our named executive officers participated in a nonqualified deferred compensation plan in 2017**.**

Outstanding Equity Awards at 2017 Year-End

The following table sets forth information regarding outstanding stock options and stock awards held by our named executive officers as of December 31, 2017:

	Option Awards						Stock Awards	
Name	Grant Date[1]	Vesting Commencement Date[2]	Number of Securities Underlying Unexercised Options (#) Exercisable[3]	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price ($)[3]	Option Expiration Date	Number of Shares or Units of Stock That Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested ($)
Erica J. Rogers	12/14/2012	10/23/2012	588,313	196,000	$ 0.51	12/14/2022	—	—
	12/14/2012	10/23/2012	222,784	—	$ 0.51	12/14/2022	—	—
	12/24/2014	12/24/2014	125,000	41,667	$ 0.54	12/24/2024	—	—
	12/3/2015	12/3/2015	193,443	193,442	$ 0.59	12/13/2025	—	—
	8/4/2016	8/4/2016	233,333	466,667	$ 0.59	8/4/2026	—	—
	11/30/2017	8/1/2017	16,667	183,333	$ 2.26	11/30/2027	—	—
	11/30/2017	8/1/2017	82,500	907,500	$ 2.26	11/30/2027	—	—
	11/30/2017	8/1/2017	—	60,000	$ 4.50	11/30/2027	—	—
Lucas W. Buchanan	8/30/2011	5/25/2011	72,833	—	$ 0.50	8/30/2021	—	—
	9/13/2012	4/10/2012	15,375	—	$ 0.51	9/13/2022	—	—
	12/24/2014	12/24/2014	81,667	27,222	$ 0.54	12/24/2024	—	—
	12/3/2015	12/3/2015	536,278	76,611	$ 0.59	12/3/2025	—	—
	8/4/2016	8/4/2016	45,000	90,000	$ 0.59	8/4/2026	—	—
	11/30/2017	8/1/2017	19,385	213,240	$ 1.75	11/30/2027	—	—
	11/30/2017	8/1/2017	7,580	83,382	$ 4.50	11/30/2027	—	—
	11/30/2017	8/1/2017	—	69,788	$ 4.50	11/30/2027	—	—
Andrew S. Davis	6/23/2015	25/5/2015	242,195	132,817	$ 0.54	6/23/2025	—	—
	12/3/2015	12/3/2015	61,804	61,804	$ 0.59	12/3/2025	—	—
	11/30/2017	8/1/2017	—	97,500	$ 1.75	11/30/2027	—	—
	11/30/2017	8/1/2017	18,958	208,542	$ 1.75	11/30/2027	—	—

(1) Each of the outstanding equity awards was granted pursuant to our 2007 Stock Plan.
(2) Options generally vest over four years from the vesting commencement date in 48 equal monthly amounts, subject to continued service through each such vesting date, provided that the option grants to (x) Ms. Rogers on November 30, 2017 for 200,000 and 1,050,000

shares, respectively, (y) Mr. Buchanan on November 30, 2017, for 232,625 and 160,750 shares, respectively, and (z) Mr. Davis on November 30, 2017, for 325,000 shares will accelerate and fully vest if the applicable optionee experiences an involuntary termination under certain circumstances within the 12 month period following a change in control of the Company. The option grants to (i) Ms. Rogers on November 30, 2017, for 60,000 shares, (ii) Mr. Buchanan on November 30, 2017, for 69,788 shares and (iii) Mr. Davis on November 30, 2017, for 97,500 shares all vest upon the earlier of a change in control of the Company or the two year anniversary of the initial public offering of the Company's common stock, provided that each such option will accelerate and fully vest upon the involuntary termination of the applicable optionee under certain circumstances. The option grant to Mr. Buchanan on December 3, 2015 for 612,889 shares vested 229,833 shares on the vesting commencement date and the remaining shares vested over thirty months from the vesting commencement date in equal monthly amounts. The option grant to Mr. Davis on June 23, 2015 for 375,000 shares vests over four years from the vesting commencement date, with 25% vested on the one year anniversary of the vesting commencement date, and with the remaining amount vesting monthly over the subsequent 36 months in equal amounts.

(3) This column represents the fair market value of our common stock on the date of grant, as determined by our board of directors.

Employee Benefit and Stock Plans

2019 Equity Incentive Plan

Our board of directors intends to adopt, and we expect our stockholders to approve, our 2019 Equity Incentive Plan, or the 2019 Plan. We expect that our 2019 Plan will become effective upon the completion of this offering. Our 2019 Plan permits the grant of incentive stock options, within the meaning of Section 422 of the Code, to our employees and any parent and subsidiary corporations' employees, and for the grant of nonstatutory stock options, restricted stock, restricted stock units, stock appreciation rights, performance units and performance shares to our employees, directors and consultants and our parent and subsidiary corporations' employees and consultants.

Authorized Shares. A total of shares of our common stock are reserved for issuance pursuant to the 2019 Plan. In addition, the shares reserved for issuance under our 2019 Plan will also include shares reserved but not issued under the 2007 Stock Plan, as amended, or the 2007 Plan, and shares subject to stock options or similar awards granted under the 2007 Plan that expire or terminate without having been exercised in full and shares issued pursuant to awards granted under the 2007 Plan that are forfeited to or repurchased by us (provided that the maximum number of shares that may be added to the 2019 Plan pursuant to this sentence is shares). In addition, shares may become available under the 2019 Plan as described below.

The number of shares available for issuance under the 2019 Plan includes an annual increase on the first day of each fiscal year beginning in fiscal 2019, equal to the lesser of:

- shares;
- % of the outstanding shares of common stock as of the last day of our immediately preceding fiscal year; or
- such other amount as our board of directors may determine.

If an award expires or becomes unexercisable without having been exercised in full, is surrendered pursuant to an exchange program, or, with respect to restricted stock, restricted stock units, performance units or performance shares, is forfeited or repurchased due to failure to vest, the unpurchased shares (or for awards other than stock options or stock appreciation rights, the forfeited or repurchased shares) will become available for future grant or sale under our 2019 Plan.

With respect to stock appreciation rights, the net shares issued will cease to be available under the 2019 Plan and all remaining shares will remain available for future grant or sale under the 2019 Plan. Shares used to pay the exercise price of an award or satisfy the tax withholding obligations related to an award will become available for future grant or sale under our 2019 Plan. To the extent an award is paid out in cash rather than shares, such cash payment will not result in reducing the number of shares available for issuance under our 2019 Plan.

Plan Administration. Our board of directors or one or more committees appointed by our board of directors will administer our 2019 Plan. In addition, if we determine it is desirable to qualify transactions under the 2019 Plan as exempt under Rule 16b-3 of the Exchange Act, or Rule 16b-3, such transactions will be structured to satisfy the requirements for exemption under Rule 16b-3. Subject to the provisions of our 2019 Plan, the administrator will have the power to administer our 2019 Plan and make all determinations deemed necessary or advisable for administering the 2019 Plan, such as the power to determine the fair market value of our common stock, select the service providers to whom awards may be granted, determine the number of shares covered by each award, approve forms of award agreements for use under the 2019 Plan, determine the terms and conditions of awards (such as the exercise price, the times or times at which the awards may be exercised, any vesting acceleration or waiver or forfeiture restrictions, and any restriction or limitation regarding any award or the shares relating thereto), construe and interpret the terms of our 2019 Plan and awards granted under it, to prescribe, amend, and rescind rules relating to our 2019 Plan, including creating sub-plans, and to modify or amend each award, such as the discretionary authority to extent the post-termination exercisability period of awards (provided that no option or stock appreciation right will be extended past its original maximum term, and to allow a participant to defer the receipt of payment of cash or the delivery of shares that would otherwise be due to such participant under an award. The administrator also will have the authority to institute an exchange program by which (i) outstanding awards may be surrendered or cancelled in exchange for awards of the same type which may have a higher or lower exercise price and/or different terms, awards of a different type and/or cash, (ii) participants have the opportunity to transfer outstanding awards to a financial institution or other person or entity selected by the administrator, or (iii) the exercise price of an outstanding award is increased or reduced. The administrator's decisions, interpretations, and other actions will be final and binding on all participants.

Stock Options. Stock options may be granted under our 2019 Plan. The exercise price of options granted under our 2019 Plan must at least be equal to the fair market value of our common stock on the date of grant. The term of an incentive stock option may not exceed 10 years, except that with respect to any participant who owns more than 10% of the voting power of all classes of our outstanding stock, the term must not exceed five years and the exercise price must equal at least 110% of the fair market value on the grant date. The administrator will determine the methods of payment of the exercise price of an option, which may include cash, shares or other property acceptable to the administrator, as well as other types of consideration permitted by applicable law. After the termination of service of an employee, director or consultant, he or she may exercise his or her option for the period of time stated in his or her option agreement. Generally, if termination is due to death or disability, the option will remain exercisable for 12 months. In all other cases, the option will generally remain exercisable for three months following the termination of service. However, in no event may an option be exercised later than the expiration of its term. Subject to the provisions of our 2019 Plan, the administrator determines the other terms of options.

Stock Appreciation Rights. Stock appreciation rights may be granted under our 2019 Plan. Stock appreciation rights allow the recipient to receive the appreciation in the fair market value of our common stock between the exercise date and the date of grant. Stock appreciation rights may not have a term exceeding 10 years. After the termination of service of an employee, director or consultant, he or she may exercise his or her stock appreciation right for the period of time stated in his or her option agreement. However, in no event may a stock appreciation right be exercised later than the expiration of its term. Subject to the provisions of our 2019 Plan, the administrator determines the other terms of stock appreciation rights, including when such rights become exercisable and whether to pay any increased appreciation in cash or with shares of our common stock, or a combination thereof, except that the per share exercise price for the shares to be issued pursuant to the exercise of a stock appreciation right will be no less than 100% of the fair market value per share on the date of grant.

Restricted Stock. Restricted stock may be granted under our 2019 Plan. Restricted stock awards are grants of shares of our common stock that vest in accordance with terms and conditions established by the administrator. The administrator will determine the number of shares of restricted stock granted to

any employee, director or consultant and, subject to the provisions of our 2019 Plan, will determine the terms and conditions of such awards. The administrator may impose whatever conditions for lapse of the restriction on the shares it determines to be appropriate (for example, the administrator may set restrictions based on the achievement of specific performance goals or continued service to us); provided, however, that the administrator, in its sole discretion, may accelerate the time at which any restrictions will lapse or be removed. Recipients of restricted stock awards generally will have voting and dividend rights with respect to such shares upon grant without regard to the restriction, unless the administrator provides otherwise. Shares of restricted stock as to which the restrictions have not lapsed are subject to our right of repurchase or forfeiture.

Restricted Stock Units. Restricted stock units may be granted under our 2019 Plan. Restricted stock units are bookkeeping entries representing an amount equal to the fair market value of one share of our common stock. Subject to the provisions of our 2019 Plan, the administrator will determine the terms and conditions of restricted stock units, including the vesting criteria (which may include accomplishing specified performance criteria or continued service to us) and the form and timing of payment. Notwithstanding the foregoing, the administrator, in its sole discretion, may accelerate the time at which any restricted stock units will vest.

Performance Units and Performance Shares. Performance units and performance shares may be granted under our 2019 Plan. Performance units and performance shares are awards that will result in a payment to a participant only if performance goals established by the administrator are achieved or the awards otherwise vest. The administrator will establish organizational or individual performance goals or other vesting criteria in its discretion, which, depending on the extent to which they are met, will determine the number and/or the value of performance units and performance shares to be paid out to participants. After the grant of a performance unit or performance share, the administrator, in its sole discretion, may reduce or waive any performance criteria or other vesting provisions for such performance units or performance shares.

Performance units shall have an initial dollar value established by the administrator prior to the grant date. Performance shares shall have an initial value equal to the fair market value of our common stock on the grant date. The administrator, in its sole discretion, may pay earned performance units or performance shares in the form of cash, in shares or in some combination

Outside Directors. Our 2019 Plan will provide that all outside (non-employee) directors will be eligible to receive all types of awards (except for incentive stock options) under our 2019 Plan. Prior to the completion of this offering, we intend to implement a formal policy pursuant to which our outside directors will be eligible to receive equity awards under our 2019 Plan. Our 2019 Plan includes a maximum annual limit of $ of cash compensation and equity awards that may be paid, issued, or granted to an outside director in any fiscal year. For purposes of this limitation, the value of equity awards is based on the grant date fair value (determined in accordance with GAAP). Any cash compensation paid or equity awards granted to a person for his or her services as an employee, or for his or her services as a consultant (other than as an outside director), will not count for purposes of the limitation. The maximum limit does not reflect the intended size of any potential compensation or equity awards to our outside directors.

Non-Transferability of Awards. Unless the administrator provides otherwise, our 2019 Plan generally does not allow for the transfer of awards and only the recipient of an award may exercise an award during his or her lifetime. If the administrator makes an award transferable, such award will contain such additional terms and conditions as the administrator deems appropriate.

Certain Adjustments. In the event of certain changes in our capitalization, to prevent diminution or enlargement of the benefits or potential benefits available under our 2019 Plan, the administrator will adjust the number and class of shares that may be delivered under our 2019 Plan and/or the number, class and price of shares covered by each outstanding award and the numerical share limits set forth in our 2019 Plan. In the event of our proposed liquidation or dissolution, the administrator will notify

participants as soon as practicable and all awards will terminate immediately prior to the consummation of such proposed transaction.

Merger or Change in Control. Our 2019 Plan provides that in the event of a merger or change in control, as defined under our 2019 Plan, each outstanding award will be treated as the administrator determines, without a participant's consent. The administrator is not required to treat all awards, all awards held by a participant, or all awards of the same type, similarly.

In the event that a successor corporation or its parent or subsidiary does not assume or substitute an equivalent award for any outstanding award, then such award will fully vest, all restrictions on such award will lapse, all performance goals or other vesting criteria applicable to such award will be deemed achieved at 100% of target levels and such award will become fully exercisable, if applicable, for a specified period prior to the transaction, unless specifically provided for otherwise under the applicable award agreement or other written agreement with the participant. The award will then terminate upon the expiration of the specified period of time. If an option or stock appreciation right is not assumed or substituted, the administrator will notify the participant in writing or electronically that such option or stock appreciation right will be exercisable for a period of time determined by the administrator in its sole discretion and the option or stock appreciation right will terminate upon the expiration of such period.

In addition, in the event of a change in control, each outside director's options and stock appreciation rights, if any, will vest fully and become immediately exercisable, all restrictions on his or her restricted stock and restricted stock units will lapse and all performance goals or other vesting requirements for his or her performance shares and units will be deemed achieved at 100% of target levels, and all other terms and conditions met.

Forfeiture and Clawback. All awards granted under our 2019 Plan will be subject to recoupment under any clawback policy that we are required to adopt under applicable law. In addition, the administrator will be able to provide in an award agreement that the recipient's rights, payments, and benefits with respect to such award will be subject to reduction, cancellation, forfeiture, or recoupment upon the occurrence of specified events. In the event of any accounting restatement, the recipient of an award will be required to repay a portion of the proceeds received in connection with the settlement of an award earned or accrued under certain circumstances.

Amendment, Termination. The administrator will have the authority to amend, suspend or terminate the 2019 Plan provided such action will not impair the existing rights of any participant. Our 2019 Plan will automatically terminate in 2029, unless we terminate it sooner.

2019 Employee Stock Purchase Plan

Our board of directors intends to adopt, and we expect our stockholders to approve, our 2019 Employee Stock Purchase Plan, or ESPP. We expect that our ESPP will be effective on the business day immediately prior to the effective date of the registration statement of which this prospectus forms a part. We believe that allowing our employees to participate in our ESPP provides them with a further incentive towards ensuring our success and accomplishing our corporate goals.

The ESPP includes a component that is intended to qualify as an "employee stock purchase plan" under Section 423 of the Internal Revenue Code of 1986, as amended, or the 423 Component, and a component that does not comply with Section 423, or the Non-423 Component. For purposes of this disclosure, a reference to the "ESPP" will mean the 423 Component. Unless determined otherwise by the administrator, each of our future non-U.S. subsidiaries, if any, will participate in a separate offering under the Non-423 Component.

Authorized shares. A total of shares of our common stock are available for sale. In addition, our ESPP provides for annual increases in the number of shares available for issuance under the ESPP on the first day of each fiscal year beginning in fiscal year 2019, equal to the lesser of:

- % of the outstanding shares of our common stock on the last day of the previous fiscal year;
- shares; or
- such other amount as may be determined by our board of directors.

Plan Administration. Our board of directors, or a committee appointed by our board of directors will administer our ESPP, and have full but non-exclusive authority to interpret the terms of our ESPP and determine eligibility to participate, subject to the conditions of our ESPP, as described below. We expect our compensation committee to administer our ESPP. The administrator will have full and exclusive discretionary authority to construe, interpret, and apply the terms of the ESPP, to delegate ministerial duties to any of our employees, to designate separate offerings under the ESPP, to designate our subsidiaries and affiliates as participating in the ESPP, to determine eligibility, to adjudicate all disputed claims filed under the ESPP and to establish procedures that it deems necessary or advisable for the administration of the ESPP, such as adopting such procedures, sub-plans, and appendices to the enrollment agreement as are necessary or appropriate to permit participation in the ESPP by employees who are foreign nationals or employed outside the U.S. The administrator's findings, decisions, and determinations will be final and binding on all participants to the full extent permitted by law.

Eligibility. Generally, all of our employees will be eligible to participate if they are customarily employed by us, or any participating subsidiary, for at least 20 hours per week and more than five months in any calendar year. The administrator will have the discretion prior to an enrollment date for all options granted on such enrollment date in an offering, determine that an employee who (i) has not completed at least two years of service (or a lesser period of time determined by the administrator) since his or her last hire date, (ii) customarily works not more than 20 hours per week (or a lesser period of time determined by the administrator), (iii) customarily works not more than five months per calendar year (or a lesser period of time determined by the administrator), (iv) is a highly compensated employee within the meaning of Section 414(v) of the Code or is an officer or subject to disclosure requirements under Section 16(a) of the Exchange Act, is or is not eligible to participate in such offering period.

However, an employee may not be granted rights to purchase shares of our common stock under our ESPP if such employee:

- immediately after the grant would own capital stock possessing 5% or more of the total combined voting power or value of all classes of our capital stock; or
- hold rights to purchase shares of our common stock under all of our employee stock purchase plans that accrue at a rate that exceeds $25,000 worth of shares of our common stock for each calendar year.

Offering Periods. Our ESPP will include a component that allows us to make offerings intended to qualify under Section 423 of the Code and a component that allows us to make offerings not intended to qualify under Section 423 of the Code to designated companies, as described in our ESPP. Our ESPP will provide for -month offering periods. The offering periods will be scheduled to start on the first trading day on or after and of each year, except for the first offering period, which will commence on the first trading day on or after completion of this offering and will end on the first trading day on or after . Each offering period will include purchase periods, which will be the approximately -month period commencing with one exercise date and ending with the next exercise date.

Contributions. Our ESPP will permit participants to purchase shares of our common stock through payroll deductions of up to % of their eligible compensation. A participant will be able to purchase a maximum of shares of our common stock during a purchase period.

Exercise of Purchase Right. Amounts deducted and accumulated by the participant will be used to purchase shares of our common stock at the end of each -month purchase period. The purchase price of the shares will be % of the lower of the fair market value of our common stock on the first trading day of each offering period or on the exercise date. If the fair market value of our common stock on the exercise date is less than the fair market value on the first trading day of the offering period, participants will be withdrawn from the current offering period following their purchase of shares of our common stock on the purchase date and will be automatically re-enrolled in a new offering period. Participants will be able to end their participation at any time during an offering period and will be paid their accrued contributions that have not yet been used to purchase shares of our common stock. Participation will end automatically upon termination of employment with us.

Non-Transferability. A participant will not be able to transfer rights granted under our ESPP. If our compensation committee permits the transfer of rights, it may only be done by will, the laws of descent and distribution or as otherwise provided under our ESPP.

Merger or Change in Control. Our ESPP will provide that in the event of a merger or change in control, as defined under our ESPP, a successor corporation may assume or substitute each outstanding purchase right. If the successor corporation refuses to assume or substitute for the outstanding purchase right, the offering period then in progress will be shortened, and a new exercise date will be set that will be before the date of the proposed merger or change in control. The administrator will notify each participant that the exercise date has been changed and that the participant's option will be exercised automatically on the new exercise date unless prior to such date the participant has withdrawn from the offering period.

Amendment; Termination. The administrator will have the authority to amend, suspend or terminate our ESPP, except that, subject to certain exceptions described in our ESPP, no such action may adversely affect any outstanding rights to purchase shares of our common stock under our ESPP. Our ESPP automatically will terminate in fiscal year 2039 unless we terminate it sooner.

2007 Stock Plan, as Amended

Our board of directors adopted, and our stockholders approved, our 2007 Stock Plan, or the 2007 Plan, in March 2007. Our 2007 Plan was most recently amended in June 2018. Our 2007 Plan allows for the grant of incentive stock options, within the meaning of Section 422 of the Internal Revenue Code of 1986, as amended, to our employees and our parent and subsidiary corporations' employees, and for the grant of nonstatutory stock options and shares of common stock to our employees, directors and consultants and our parent and subsidiary corporations' employees, directors and consultants.

Authorized Shares. Our 2007 Plan will be terminated in connection with this offering, and accordingly, no shares will be available for issuance under the 2007 Plan following the completion of this offering. Our 2007 Plan will continue to govern outstanding awards granted thereunder. As of September 30, 2018, options to purchase 11,551,290 shares of our common stock remained outstanding under our 2007 Plan. In the event that an outstanding option or other right for any reason expires or is canceled, the shares allocable to the unexercised portion of such option or other right shall be added to the number of shares then available for issuance under the 2019 Plan once adopted by our board of directors and our stockholders.

Plan Administration. Our board of directors or a committee of our board (the administrator) administers our 2007 Plan. Subject to the provisions of the 2007 Plan, the administrator has the full authority and discretion to take any actions it deems necessary or advisable for the administration of the

2007 Plan. All decisions, interpretations and other actions of the administrator are final and binding on all participants in the 2007 Plan.

Options. Stock options may be granted under our 2007 Plan. The exercise price per share of all options must equal at least 100% of the fair market value per share of our common stock on the date of grant, as determined by the administrator. The term of a stock option may not exceed 10 years. With respect to any participant who owns 10% of the voting power of all classes of our outstanding stock as of the grant date, the term of an incentive stock option granted to such participant must not exceed five years and the exercise price per share of such incentive stock option must equal at least 110% of the fair market value per share of our common stock on the date of grant, as determined by the administrator. The 2007 Plan administrator determines the terms and conditions of options.

After termination of an employee, director or consultant, he or she may exercise his or her option for the period of time as specified in the applicable option agreement. If termination is due to death or disability, the option generally will remain exercisable for at least six months. In all other cases, the option will generally remain exercisable for at least 30 days. However, an option generally may not be exercised later than the expiration of its term. Shares of Common Stock. Shares of our common stock may be granted under our 2007 Plan as a purchasable award. The administrator will determine the purchase price and the number of shares granted to the award recipient. Stock purchase rights generally must be exercised within 90 days of grant.

Transferability of Awards. Unless our administrator provides otherwise, our 2007 Plan generally does not allow for the transfer or assignment of options or stock purchase rights, except by will or by the laws of descent and distribution. Shares issued upon exercise of an option will be subject to such terms and conditions as the administrator may determine, including rights of first refusal and other transfer restrictions.

Certain Adjustments. In the event of a subdivision of our outstanding stock, a declaration of a dividend payable in shares, a combination or consolidation of our outstanding stock into a lesser number of shares, a reclassification, or any other increase or decrease in the number of issued shares of stock effected without receipt of consideration by us, the 2007 Plan will be appropriately adjusted by the administrator as to the class and maximum number of securities subject to the 2007 Plan and the class, number of securities and price per share of common stock subject to outstanding awards under the 2007 Plan, provided that our administrator will make any adjustments as may be required by Section 25102(o) of the California Corporations Code.

Merger or Change in Control. Our 2007 Plan provides that, in the event that we are a party to a merger or change in control, outstanding options and stock purchase rights may be assumed or substituted by the successor corporation or a parent or subsidiary thereof. In the event the successor corporation refuses to assume or substitute for the option or stock purchase right, then the vesting of such awards will be fully accelerated and the administrator will notify the holder in writing or electronically that such awards will be fully exercisable and vested for a period as determined by the administrator, and such awards will terminate upon expiration of such period.

Amendment; Termination. Our board of directors may amend, suspend or terminate our 2007 Plan at any time, provided that such action does not impair a participant's rights under outstanding awards without such participant's written consent. As noted above, upon completion of this offering, our 2007 Plan will be terminated and no further awards will be granted thereunder. All outstanding awards will continue to be governed by their existing terms.

Executive Incentive Compensation Plan

Our board of directors expects to adopt an Executive Incentive Compensation Plan, or the Bonus Plan, which will become effective upon the completion of this offering. The Bonus Plan will be

administered by our compensation committee following the completion of this offering. The Bonus Plan allows our compensation committee to provide cash incentive awards to selected employees, including our named executive officers, based upon performance goals established by our compensation committee.

Under the Bonus Plan, our compensation committee determines the performance goals applicable to any award, which goals may include, without limitation: (i) attainment of research and development milestones, (ii) bookings, (iii) business divestitures and acquisitions, (iv) cash flow, (v) cash position, (vi) contract awards or backlog, (vii) customer renewals, (viii) customer retention rates from an acquired company, subsidiary, business unit or division, (ix) earnings (which may include earnings before interest and taxes, earnings before taxes, and net taxes), (x) earnings per share, (xi) expenses, (xii) gross margin, (xiii) growth in stockholder value relative to the moving average of the S&P 500 Index or another index, (xiv) internal rate of return, (xv) market share, (xvi) net income, (xvii) net profit, (xviii) net sales, (xix) new product development, (xx) new product invention or innovation, (xxi) number of customers, (xxii) operating cash flow, (xxiii) operating expenses, (xxiv) operating income, (xxv) operating margin, (xxvi) overhead or other expense reduction, (xxvii) product defect measures, (xxviii) product release timelines, (xxix) productivity, (xxx) profit, (xxxi) retained earnings, (xxxii) return on assets, (xxxiii) return on capital, (xxxiv) return on equity, (xxxv) return on investment, (xxxvi) return on sales, (xxxvii) revenue, (xxxviii) revenue growth, (xxxix) sales results, (xl) sales growth, (xli) stock price, (xlii) time to market, (xliii) total stockholder return, (xliv) working capital, and (xlv) individual objectives such as peer reviews or other subjective or objective criteria. Performance goals that include our financial results may be determined in accordance with GAAP or such financial results may consist of non-GAAP financial measures and any actual results may be adjusted by the compensation committee for one-time items or unbudgeted or unexpected items when performance goals that include our financial results may be determined in accordance with GAAP, or such financial results may consist of non-GAAP financial measures, and any actual results may be adjusted by the compensation committee for one-time items or unbudgeted or unexpected items when determining whether the performance goals have been met. The goals may be on the basis of any factors the compensation committee determines relevant, and may be adjusted on an individual, divisional, business unit or company-wide basis. The performance goals may differ from participant to participant and from award to award.

Our compensation committee may, in its sole discretion and at any time, increase, reduce or eliminate a participant's actual award, and/or increase, reduce or eliminate the amount allocated to the bonus pool for a particular performance period. The actual award may be below, at or above a participant's target award, in the compensation committee's discretion. Our compensation committee may determine the amount of any reduction on the basis of such factors as it deems relevant, and it is not required to establish any allocation or weighting with respect to the factors it considers.

Actual awards are paid in cash only after they are earned, which usually requires continued employment through the date a bonus is paid. Our compensation committee has the authority to amend, alter, suspend or terminate the Bonus Plan provided such action does not impair the existing rights of any participant with respect to any earned bonus.

401(k) Plan

We maintain a tax-qualified retirement plan that provides eligible employees with an opportunity to save for retirement on a tax advantaged basis. We may make a discretionary matching contribution to the 401(k) plan, and may make a discretionary employer contribution to each eligible employee each year. To date, we have not made any matching or profits sharing contributions into the 401(k) plan. All participants' interests in their deferrals are 100% vested when contributed. Pre-tax contributions are allocated to each participant's individual account and are then invested in selected investment alternatives according to the participants' directions. The 401(k) plan is intended to qualify under Sections 401(a) and 501(a) of the Code. As a tax-qualified retirement plan, contributions to the 401(k)

plan and earnings on those contributions are not taxable to the employees until distributed from the 401(k) plan, and all contributions are deductible by us when made.

CERTAIN RELATIONSHIPS AND RELATED-PARTY TRANSACTIONS

Other than compensation arrangements, we describe below transactions and series of similar transactions, since January 1, 2016, to which we were a party or will be a party, in which:

- the amounts involved exceeded or will exceed $120,000; and
- any of our directors, executive officers, or holders of more than 5% of our common stock, or any member of the immediate family of the foregoing persons, had or will have a direct or indirect material interest.

Compensation arrangements for our directors and named executive officers are described elsewhere in this prospectus.

Certain Transactions with Related Persons

During 2016, 2017 and 2018, the wife of Richard Ruedy, Executive Vice President of Clinical and Regulatory Affairs and Quality Assurance, was employed by the Company as Senior Director of Clinical and Regulatory Affairs. In 2016, Mr. Ruedy's wife earned total compensation of approximately $190,000. In 2017, Mr. Ruedy's wife earned total compensation of approximately $205,000. In 2018, Mr. Ruedy's wife earned total compensation of approximately $. Total compensation includes salary and bonus. The compensation of Mr. Ruedy's wife is consistent with that of other employees with equivalent qualifications and responsibilities and holding similar positions, and Mr. Ruedy recused himself from any decision regarding the hiring of, or compensation related to his wife.

Series C Preferred Stock Financing

Between August 2014 and July 2017, we issued an aggregate 33,015,627 shares of our Series C preferred stock at a purchase price of $2.26 per share. The shares of Series C preferred stock will convert into an aggregate of 33,015,627 shares of common stock upon the completion of this offering. The table below sets forth the number of shares of Series C preferred stock sold to our directors, executive officers and holders of more than 5% of our capital stock:

Name	Number of Shares	Number of Warrant Shares	Aggregate Purchase Price
Entities affiliated with Warburg Pincus & Co.[1]	15,941,294	5,979,496	$ 36,027,324.24
Entities affiliated with Janus[2]	6,637,168	-	14,999,999.68
Entities affiliated Norwest Venture Partners[3]	6,637,168	-	14,999,999.68
Entities affiliated with The Vertical Group, Inc.[4]	1,771,249	664,385	4,003,022.74
Elizabeth H. Weatherman	442,476	110,619	999,995.76
Erica J. Rogers [5]	24,335	4,424	54,997.10
Lucas W. Buchanan[6]	50,882	13,274	114,993.32
Andrew S. Davis	33,185	-	74,998.10

(1) Affiliates of Warburg Pincus holding our securities, whose shares are aggregated for purposes of reporting the above share purchase information, are WP X Finance, L.P., which purchased 15,447,115 shares, and Warburg Pincus X Partners, L.P., which purchased 494,179 shares.
(2) Affiliates of Janus holding our securities, whose shares are aggregated for purposes of reporting the above share purchase information, are Buoybreeze + Co (a State Street Nominee), which purchased 4,348,205 shares, and Janus Capital Funds PLC on behalf of its Series Janus Global Life Sciences Fund, which purchased 2,288,963 shares.
(3) The affiliate of Norwest Venture Partners holding our securities, is Norwest Venture Partners XIII, LP, which purchased 6,637,168 shares.
(4) Affiliates of the Vertical Group holding our securities, whose shares are aggregated for purposes of reporting the above share purchase information, are Vertical Fund I, L.P., which purchased 1,417,001 shares, and Vertical Fund II, L.P., which purchased 354,248 shares.

(5) Includes 24,335 shares held of record by The Surace/Rogers Family Trust, of which Erica J. Rogers, one of our executive officers, serves as trustee.
(6) Includes 28,760 shares held of record by the Buchanan Grandchildren's Irrevocable Trust, of which Mr. Buchanan, one of our executive officers, serves as trustee.

Stockholders Agreement

In July 2017, in connection with the final closing of our Series C preferred stock financing, we entered into an amended and restated stockholders agreement with certain holders of our preferred stock, including entities with which certain of our directors are affiliated.

Registration Rights Agreement

In July 2017, in connection with the final closing of our Series C preferred stock financing, we entered into an amended and restated registration rights agreement with certain holders of our preferred stock, including entities with which certain of our directors are affiliated. For a detailed description of registration rights under this agreement, see “Description of Capital Stock—Registration Rights.” Upon the completion of this offering, the information rights and right of first refusal under the stockholders agreement will terminate.

Indemnification Agreements

We have entered into indemnification agreements with each of our directors and executive officers. These agreements, among other things, require us to indemnify each director and executive officer to the fullest extent permitted by Delaware law, including indemnification of expenses such as attorneys’ fees, judgments, penalties, fines and settlement amounts incurred by the director or officer in any action or proceedings, including any action or proceeding by or in right of us, arising out of the person’s service as a director or officer.

NeuroCo Merger

We established a holding company, NeuroCo, Inc., to hold certain intellectual property and to undertake certain research and development activities. On December 17, 2018, we and NeuroCo entered into an Agreement and Plan of Merger pursuant to which we acquired all assets, including the assignment of all patents, and assumed all liabilities of NeuroCo. The merger closed on the same day and was consummated through a stock-for-stock transaction based on the relative values of our equity and NeuroCo’s equity. In consideration for 100% equity interest of NeuroCo, we issued 90,085 shares of our common stock, and a promissory note in the principal amount of approximately $1.6 million was settled and canceled. We assumed NeuroCo’s 2015 Equity Incentive Plan, or the NeuroCo Plan. As of the merger closing, the outstanding options to purchase common stock of NeuroCo under the NeuroCo Plan converted to options to purchase 3,899 shares of our common stock, and all outstanding warrants to purchase common stock of NeuroCo converted to warrants to purchase 20,255 shares of our common stock. As a result of the merger, NeuroCo merged into our company, with our company being the surviving corporation.

Policies and Procedures for Related Party Transactions

Our board of directors has approved a policy, effective upon the completion of this offering, that our executive officers, directors, nominees for election as a director, beneficial owners of more than 5% of any class of our common stock and any members of the immediate family of any of the foregoing persons are not permitted to enter into a related person transaction with us without the prior consent of our audit committee. Any request for us to enter into a transaction with an executive officer, director, nominee for election as a director, beneficial owner of more than 5% of any class of our common stock or any member of the immediate family of any of the foregoing persons in which the amount involved exceeds $120,000 and such person would have a direct or indirect interest must first be presented to our audit committee for review, consideration and approval. In approving or rejecting any such proposal, our audit committee is to consider the material facts of the transaction, including, but not limited to, whether the transaction is on

terms no less favorable than terms generally available to an unaffiliated third party under the same or similar circumstances and the extent of the related person's interest in the transaction. We did not have a formal review and approval policy for related party transactions at the time of any of the transactions described above. However, all of the transactions described above were entered into after presentation, consideration and approval by our board of directors.

PRINCIPAL AND SELLING STOCKHOLDERS

The following table provides information concerning beneficial ownership of our common stock as of September 30, 2018, assuming no exercise of the underwriters' option to purchase additional shares of our common stock from us, by:

- each stockholder, or group of affiliated stockholders, that we know owns more than 5% of our outstanding common stock;
- each of our named executive officers;
- each of our directors;
- all of our executive officers and directors as a group; and
- all selling stockholders.

The percentage of shares beneficially owned is computed on the basis of 60,294,002 shares of our common stock outstanding as of September 30, 2018, which reflects the assumed conversion of all of our outstanding shares of convertible preferred stock and the exercise of outstanding warrants to purchase shares of convertible preferred stock into shares of common stock. Percentage ownership of our common stock after the offering assumes the sale of shares by us in this offering. If the underwriters' option to purchase additional shares is exercised in full, entities affiliated with Warburg Pincus & Co. will offer shares in this offering.

Beneficial ownership is determined in accordance with the rules of the SEC, and generally includes voting power or investment power with respect to the securities held. Shares of common stock subject to options currently exercisable or exercisable within 60 days of September 30, 2018, are deemed outstanding and beneficially owned by the person holding such options for purposes of computing the number of shares and percentage beneficially owned by such person, but are not deemed outstanding for purposes of computing the percentage beneficially owned by any other person.

Except as indicated in the footnotes to this table, (i) the persons or entities named have sole voting and investment power with respect to all shares of our common stock shown as beneficially owned by them, and (ii) the address for each beneficial owner is c/o Silk Road Medical, Inc., 1213 Innsbruck Dr, Sunnyvale, CA 94089.

The selling stockholders have granted the underwriters an option exercisable for 30 days after the date of this prospectus, to purchase, from time to time, in whole or in part, up to an aggregate of shares from the selling stockholders at the public offering price less underwriting discounts and commissions.

Name of Beneficial Owner	Shares Beneficially Owned Prior to the Offering		Shares Beneficially Owned After the Offering (assuming no exercise of option)		Shares Beneficially Owned After the Offering (assuming full exercise of option)	
	Number of Shares	Percentage	Number of Shares	Percentage	Number of Shares	Percentage
5% and Greater Stockholders:						
Entities affiliated with Warburg Pincus & Co[1]	37,142,029	61.6%				
Entities affiliated with The Vertical Group, Inc.[2]	11,530,464	19.1%				
Entities affiliated with Norwest Venture Partners[3]	6,637,168	11.0%				
Entities affiliated with Janus[4]	6,637,168	11.0%				
Named Executive Officers and Directors:						
Erica J. Rogers[5]	2,246,799	3.6%				
Lucas W. Buchanan[7]	1,057,682	1.8%				
Andrew S. Davis[6]	522,546	*				
Elizabeth H. Weatherman[8]	713,408	1.2%				
Tony M. Chou, M.D.[9]	259,000	*				
Ruoxi Chen	—					
Jack W. Lasersohn	—	*				
Robert E. Mittendorff	—	*				
Annette Rodriguez-Ferrer	—	*				
Donald J. Zurbay	—	*				
All executive officers and directors as a group (10 persons) [10]	4,799,435	6.6%				

* Represents ownership of less than 1%.

(1) Consists of (i) 1,966,038 shares of common stock and 185,363 common stock purchase warrants beneficially owned by Warburg Pincus X Partners, L.P. (“WPXP”), and (ii) 30,196,495 shares of common stock and 5,794,133 common stock purchase warrants beneficially owned by WP X Finance, L.P. (“WP X Finance”). WPX GP, L.P., a Delaware limited partnership (“WPX GP”), is the managing general partner of WP X Finance. Warburg Pincus Private Equity X, L.P., a Delaware limited partnership (“WP X”), is the general partner of WPX GP. Warburg Pincus X, L.P., a Delaware limited partnership (“WPX LP”), is the general partner of WPX. Warburg Pincus X GP L.P., a Delaware limited partnership (“WP X GP LP”), is the general partner of WPX LP. WPP GP LLC, a Delaware limited liability company (“WPP GP”), is the general partner of WP X GP LP. Warburg Pincus Partners, L.P., a Delaware limited partnership (“WP Partners”), is the managing member of WPP GP. Warburg Pincus Partners GP LLC, a Delaware limited liability company (“WP Partners GP”), is the general partner of WP Partners. Warburg Pincus & Co., a New York general partnership (“WP”), is the managing member of WP Partners GP.

Ruoxi Chen, a Principal at Warburg Pincus & Co., and Annette Rodriguez-Ferrer, a Managing Director at Warburg Pincus & Co., are members of our board of directors, and both have no voting or dispositive power with respect to any of the above referenced shares and each disclaims beneficial ownership of such shares except to the extent of his or her respective pecuniary interest therein. All

indirect holders of the above referenced shares disclaim beneficial ownership of all applicable shares except to the extent of their pecuniary interest therein.

(2) Consists of (i) 8,681,265 shares of common stock and 531,509 common stock purchase warrants beneficially owned by Vertical Fund I, L.P. (“Vertical I”), (ii) 2,182,814 shares of common stock and 132,876 common stock purchase warrants beneficially owned by Vertical Fund II, L.P. (“Vertical II”), and (iii) 2,000 shares of common stock beneficially owned by the Vertical Group, Inc. The Vertical Group, L.P., a Delaware limited partnership, is the sole general partner of each of VFI and VFII, and The Vertical Group GP, LLC, a Delaware limited liability company, controls The Vertical Group, L.P. The sole members and managers of The Vertical Group GP, LLC are Messrs. Tony M. Chou, Richard B. Emmitt, Jack W. Lasersohn and John E. Runnells, and these five individuals share voting and investment power over securities held by The Vertical Group, VFI and VFII. Mr. Lasersohn disclaims beneficial ownership of such shares except to the extent of his pecuniary interest therein. The address of The Vertical Group, L.P., The Vertical Group GP, LLC, VFI and VFII. is 106 Allen Road, Suite 207, Basking Ridge, NJ 07920.

(3) Consists of 6,637,168 shares of common stock beneficially owned by Norwest Venture Partners XIII, LP (“NVP XIII”). Genesis XII, is the general partner of NVP XIII and may be deemed to have sole voting and dispositive power over the shares held by NVP XIII. NVP Associates, LLC, the managing member of Genesis XII, and each of Promod Haque, Jeffrey Crowe and Jon Kossow, as Co-Chief Executive Officers of NVP Associates, LLC and members of the general partner, may be deemed to share voting and dispositive power over the shares held by NVP XIII. Such persons and entities disclaim beneficial ownership of the shares held by NVP XIII, except to the extent of any proportionate pecuniary interest therein. The address for these entities is 525 University Avenue, #800, Palo Alto, CA 94301.

Dr. Robert E. Mittendorff is a Partner at Norwest Venture Partners and is a member of our board of directors, and has no voting or dispositive power with respect to any of the above referenced shares and each disclaims beneficial ownership of such shares except to the extent of his respective pecuniary interest therein. All indirect holders of the above referenced shares disclaim beneficial ownership of all applicable shares except to the extent of their pecuniary interest therein.

(4) Consists of (i) 2,288,963 shares of common stock owned by Janus Capital Funds PLC on behalf of its Series Janus Global Life Sciences Fund (“JCF”), and (ii) 4,348,205 shares of common stock beneficially owned by Janus Henderson Global Life Sciences Fund (“Janus Global Life”) in the name of Buoybreeze + Co (a State Street Nominee). The shares owned by JCF, Janus Global Life and Buoybreeze (collectively, the "Funds") may be deemed to be beneficially owned by Janus Capital Management LLC (“Janus”), an investment advisor registered under the Investment Advisers Act of 1940, who acts as investment adviser for the Funds set forth above and has the ability to make decisions with respect to the voting and disposition of the shares subject to the oversight of the board of trustees (or similar entity) of each Fund. Under the terms of its management contract with each Fund, Janus has overall responsibility for directing the investments of the Fund in accordance with the Fund’s investment objective, policies and limitation. Each Fund has one or more portfolio managers appointed by and serving at the pleasure of Janus who makes decisions with respect to the disposition of the Shares. Similarly, State Street Bank is the custodian of Buoybreeze appointed by and serving at the pleasure of Janus. The address for Janus is 151 Detroit Street, 4th Floor, Denver, CO 80206.

(5) Consists of (i) 260,000 shares of common stock held directly by Ms. Rogers, (ii) 220,335 shares of common stock and 4,424 common stock purchase warrants held by Kevin J. Surace and Erica J. Rogers, as Trustees of The Surace/Rogers Family Trust, and (iii) 1,762,020 shares of common stock issuable pursuant to options held directly by Ms. Rogers exercisable within 60 days of September 30, 2018.

(6) Consists of (i) 33,185 shares of common stock held directly by Mr. Davis, and (ii) 489,361 shares of common stock issuable pursuant to options held directly by Mr. Davis exercisable within 60 days of September 30, 2018.

(7) Consists of (i) 203,015 shares of common stock and 5,531 common stock purchase warrants held directly by Mr. Buchanan, (ii) 28,760 shares of common stock and 7,743 common stock purchase warrants held by the Buchanan Grandchildren's Irrevocable Trust, and (iii) 812,633 shares of common stock issuable pursuant to options held directly by Mr. Buchanan exercisable within 60 days of September 30, 2018.

(8) Consists of (i) 442,476 shares of common stock and 110,619 common stock purchase warrants held directly by Ms. Weatherman, and (ii) 160,313 shares of common stock issuable pursuant to options held directly by Ms. Weatherman exercisable within 60 days of September 30, 2018.

(9) Consists of (i) 65,000 shares of common stock held directly by Dr. Chou, and (ii) 194,000 shares of common stock issuable pursuant to options held directly by Dr. Chou exercisable within 60 days of September 30, 2018.

(10) Consists of (i) 1,385,277 shares of common stock and common stock purchase warrants held by our current directors and officers and entities affiliated with certain of our current directors and officers, and (ii) 5,533,918 shares of common stock issuable pursuant to stock options held by such directors and officers and exercisable within 60 days of September 30, 2018.

DESCRIPTION OF CAPITAL STOCK

The following summary describes our capital stock and the material provisions of our amended and restated certificate of incorporation and our amended and restated bylaws, which will become effective prior to the completion of this offering, the amended and restated investors rights agreement to which we and certain of our stockholders are parties, and of the Delaware General Corporation Law. This summary does not purport to be complete and is qualified in its entirety by the provisions of our amended and restated certificate of incorporation, amended and restated bylaws and amended and restated investors rights agreement, copies of which have been filed as exhibits to the registration statement of which this prospectus is a part.

General

Prior to the completion of this offering, we will file our amended and restated certificate of incorporation that authorizes million shares of common stock, $0.001 par value per share, and million shares of preferred stock, $0.001 par value per share. As of September 30, 2018, there were outstanding:

- 2,964,306 shares of our common stock held by approximately 41 stockholders of record;
- 57,329,696 shares of our common stock issuable upon conversion of outstanding shares of preferred stock held by approximately 23 stockholders of record;
- 7,215,780 shares of our common stock issuable upon exercise of outstanding warrants to purchase convertible preferred stock; and
- 11,551,290 shares of our common stock issuable upon exercise of outstanding stock options.

Assuming the conversion of all outstanding shares of our convertible preferred stock and exercise of outstanding warrants to purchase preferred stock into shares of our common stock, which will occur immediately prior to the completion of this offering, as of September 30, 2018, there were 60,294,002 shares of our common stock outstanding, held by approximately 57 stockholders of record and no shares of our preferred stock outstanding. Upon the completion of this offering we expect to have shares of common stock outstanding and no shares of preferred stock outstanding.

Common Stock

Voting Rights

Each holder of our common stock is entitled to one vote for each share on all matters submitted to a vote of the stockholders, including the election of directors. Our stockholders do not have cumulative voting rights in the election of directors. Accordingly, holders of a majority of the voting shares are able to elect all of the directors.

Dividends

Subject to preferences that may be applicable to any then outstanding preferred stock, holders of our common stock are entitled to receive dividends, if any, as may be declared from time to time by our board of directors out of legally available funds. We do not have any plans to pay dividends to our stockholders.

Liquidation

In the event of our liquidation, dissolution or winding up, holders of our common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all

of our debts and other liabilities and the satisfaction of any liquidation preference granted to the holders of any then outstanding shares of preferred stock.

Rights and Preferences

Holders of our common stock have no preemptive, conversion, subscription or other rights, and there are no redemption or sinking fund provisions applicable to our common stock. The rights, preferences and privileges of the holders of our common stock are subject to and may be adversely affected by the rights of the holders of shares of any series of our preferred stock that we may designate in the future.

Fully Paid and Nonassessable

All of our outstanding shares of common stock are, and the shares of common stock to be issued in this offering will be, fully paid and nonassessable.

Preferred Stock

Immediately prior to the completion of this offering, all outstanding shares of our convertible preferred stock will be converted into shares of our common stock. Upon the completion of this offering, our board of directors will have the authority, without further action by our stockholders, to issue up to million shares of preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions thereof. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, rights and terms of redemption, liquidation preferences, sinking fund provisions and the number of shares constituting, or the designation of, such series, any or all of which may be greater than the rights of common stock. The issuance of our preferred stock could adversely affect the voting power of holders of common stock and the likelihood that such holders will receive dividend payments and payments upon our liquidation. In addition, the issuance of preferred stock could have the effect of delaying, deferring or preventing a change in control of our company or other corporate action. Immediately after completion of this offering, no shares of preferred stock will be outstanding, and we have no present plan to issue any shares of preferred stock.

Warrants

The following table sets forth information about outstanding warrants to purchase shares of our stock as of September 30, 2018. Immediately prior to the completion of this offering the warrants to purchase shares of our Series C preferred stock will be exercised for shares of our common stock, based on their conversion ratio, if not earlier exercised.

The warrants to purchase shares of our Series C preferred stock will expire upon the earlier of the expiration date set forth in each warrant, which are various dates between August 2022 and April 2024, our acquisition, a sale of all or substantially all our assets, or an initial public offering. We expect these warrants to be exercised in connection with this offering.

Class of Stock Underlying Warrants	Number of Shares of Preferred Stock Exercisable Prior to this Offering	Number of Shares of Common Stock Underlying Warrants on an As-Converted Basis	Exercise Price Per Share Prior to this Offering	Exercise Price Per Share on an As-Converted Basis
Series C preferred stock, par value $0.001	7,215,780	7,215,780	$ 2.26	$ 2.26
Total	7,215,780	7,215,780		

Registration Rights

After the completion of this offering, the holders of an aggregate of shares of our common stock as of , 2019 (including shares issuable upon the conversion of our outstanding convertible preferred stock immediately prior to the completion of this offering), will be entitled to certain rights with respect to the registration of such shares under the Securities Act. Beginning 180 days after the completion of this offering, the holders of at least a majority of these securities have the right to require us, on not more than two occasions, to file a registration statement on Form S-1 under the Securities Act in order to register the resale of their shares of common stock. We may, in certain circumstances, defer such registrations and the underwriters have the right, subject to certain marketing and other limitations, to limit the number of shares included in any underwritten offering. Further, the holders of these securities may require us to register the resale of all or a portion of their shares on a Registration Statement on Form S-3, subject to certain conditions and limitations.

In addition, the holders of these securities have certain “piggyback” registration rights. If we propose to register any of our equity securities under the Securities Act other than pursuant to the registration rights noted above or specified excluded registrations, holders may require us to include all or a portion of their registrable securities in the registration and in any related underwriting, subject to certain limitations. In an underwritten offering, the underwriters have the right, subject to specified conditions, to limit the number of registrable securities such holders may include. Additionally, piggyback registrations are subject to delay or termination of the registration under certain circumstances. The underwriters named in this prospectus have notified us that no holders of registration rights will be permitted to include any of their shares in this offering.

Anti-Takeover Effects or Provisions of our Amended and Restated Certificate of Incorporation, our Amended and Restated Bylaws and Delaware Law

Some provisions of Delaware law and our amended and restated certificate of incorporation and our amended and restated bylaws that will be in effect prior to the completion of this offering contain provisions that could make the following transactions more difficult: acquisition of us by means of a tender offer; acquisition of us by means of a proxy contest or otherwise; or removal of our incumbent officers and directors. It is possible that these provisions could make it more difficult to accomplish or could deter transactions that stock holders may otherwise consider to be in their best interest or in our best interests, including transactions that might result in a premium over the market price for our shares.

These provisions, summarized below, are expected to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to encourage persons seeking to acquire control of us to first negotiate with our board of directors. We believe that the benefits of increased protection of our potential ability to negotiate with the proponent of a non-friendly or unsolicited proposal to acquire or restructure us outweigh the disadvantages of discouraging these proposals because negotiation of these proposals could result in an improvement of their terms.

Delaware Anti-Takeover Statute

We are subject to Section 203 of the General Corporation Law of the State of Delaware, which prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years after the date that such stockholder became an interested stockholder, with the following exceptions:

- before such date, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested holder;
- upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation

outstanding at the time the transaction began, excluding for purposes of determining the voting stock outstanding (but not the outstanding voting stock owned by the interested stockholder) those shares owned (i) by persons who are directors and also officers and (ii) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or

- on or after such date, the business combination is approved by the board of directors and authorized at an annual or special meeting of the stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock that is not owned by the interested stockholder.

In general, Section 203 defines business combination to include the following:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;
- subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- any transaction involving the corporation that has the effect of increasing the proportionate share of the stock or any class or series of the corporation beneficially owned by the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loss, advances, guarantees, pledges or other financial benefits by or through the corporation.

In general, Section 203 defines interested stockholder as an entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation or any entity or person affiliated with or controlling or controlled by such entity or person.

Undesignated Preferred Stock

The ability to authorize undesignated preferred stock makes it possible for our board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to acquire us. These and other provisions may have the effect of deterring hostile takeovers or delaying changes in control or management of our company.

Special Stockholder Meetings

Our amended and restated bylaws will provide that a special meeting of stockholders may be called only by our board of directors, the chairperson of our board of directors, or our Chief Executive Officer or President. This provision might delay the ability of our stockholders to force consideration of a proposal or for stockholders controlling a majority of our capital stock to take any action, including the removal of directors.

Requirements for Advance Notification of Stockholder Nominations and Proposals

Our amended and restated bylaws will establish advance notice procedures with respect to stockholder proposals and the nomination of candidates for election as directors, other than nominations made by or at the direction of the board of directors or a committee of the board of directors. Our amended and restated bylaws will also specify certain requirements regarding the form and content of a stockholder’s notice.

Elimination of Stockholder Action by Written Consent

Our amended and restated certificate of incorporation and our amended and restated bylaws will eliminate the right of stockholders to act by written consent without a meeting. As a result, a holder controlling a majority of our capital stock would not be able to amend our amended and restated bylaws or remove directors without holding a meeting of our stockholders called in accordance with our amended and restated bylaws.

Classified Board; Election and Removal of Directors

Our amended and restated certificate of incorporation and amended and restated bylaws will authorize only our board of directors to fill vacant directorships, including newly created seats. In addition, the number of directors constituting our board of directors will be permitted to be set only by a resolution adopted by our board of directors. These provisions would prevent a stockholder from increasing the size of our board of directors and then gaining control of our board of directors by filling the resulting vacancies with its own nominees. This makes it more difficult to change the composition of our board of directors but promotes continuity of management.

Upon the completion of this offering, our board of directors will be divided into three classes. The directors in each class will serve for a three-year term, one class being elected each year by our stockholders, with staggered three-year terms. Only one class of directors will be elected at each annual meeting of our stockholders, with the other classes continuing for the remainder of their respective three-year terms. Because our stockholders do not have cumulative voting rights, our stockholders holding a majority of the shares of common stock outstanding will be able to elect all of our directors. In addition, our amended and restated certificate of incorporation will provide that directors may only be removed for cause. For more information on the classified board, see “Management—Board of Directors.” This system of electing and removing directors may tend to discourage a third party from making a tender offer or otherwise attempting to obtain control of us, because it generally makes it more difficult for stockholders to replace a majority of the directors.

Choice of Forum

Our amended and restated certificate of incorporation will provide that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware will be the exclusive forum for any derivative action or proceeding brought on our behalf, any action asserting a breach of fiduciary duty, any action asserting a claim against us arising pursuant to the Delaware General Corporation Law, our amended and restated certificate of incorporation or our amended and restated bylaws, or any action asserting a claim against us that is governed by the internal affairs doctrine.

Amendment of Charter Provisions

The amendment of any of the above provisions, except for the provision making it possible for our board of directors to issue preferred stock, would require approval by holders of at least 66 2/3% of the voting power of our then outstanding voting stock.

The provisions of the Delaware General Corporation Law, our amended and restated certificate of incorporation and our amended and restated bylaws may have the effect of discouraging others from attempting hostile takeovers and, as a consequence, they may also inhibit temporary fluctuations in the market price of our common stock that often result from actual or rumored hostile takeover attempts. These provisions may also have the effect of preventing changes in our management. It is possible that these provisions could make it more difficult to accomplish transactions that stockholders may otherwise deem to be in their best interests.

Limitations on Liability and Indemnification Matters

For a discussion of liability and indemnification, see “Management-Limitation on Liability and Indemnification Matters.”

Exchange Listing

We have applied to list of our common stock on The NASDAQ Global Market under the symbol “SILK.”

Transfer Agent

The transfer agent for our common stock will be . The transfer agent’s address is . Our shares of common stock will be issued in uncertificated form only, subject to limited exceptions.

SHARES ELIGIBLE FOR FUTURE SALE

Prior to the completion of this offering, there has been no public market for our common stock, and we cannot predict the effect, if any, that market sales of shares of our common stock or the availability of shares of our common stock for sale will have on the market price of our common stock prevailing from time to time. Future sales of our common stock in the public market, or the availability of such shares for sale in the public market, could adversely affect market prices prevailing from time to time. As described below, only a limited number of shares will be available for sale shortly after the completion of this offering due to contractual and legal restrictions on resale. Nevertheless, sales of our common stock in the public market after such restrictions lapse, or the perception that those sales may occur, could adversely affect the prevailing market price at such time and our ability to raise equity capital in the future.

Upon the completion of this offering, based on the number of shares of our capital stock outstanding as of September 30, 2018, we will have a total of shares of our common stock outstanding, assuming the automatic conversion of all outstanding shares of convertible preferred stock into shares of common stock upon the completion of this offering and including common stock issuable upon exercise of outstanding warrants and stock options. Of these outstanding shares, all the shares of common stock sold in this offering, plus any shares sold upon exercise of the underwriters' option to purchase additional shares, will be freely tradable, unless purchased by our affiliates.

The remaining outstanding shares of our common stock will be deemed "restricted securities" as defined in Rule 144. Restricted securities may be sold in the public market only if they are registered or if they qualify for an exemption from registration under Rule 144 or Rule 701 under the Securities Act, which rules are summarized below. In addition, holders of all or substantially all of our equity securities have entered into or will enter into lock-up agreements with the underwriters under which they have agreed, subject to specific exceptions, not to sell any of our stock for at least 180 days following the date of this prospectus, as described below. As a result of these agreements, subject to the provisions of Rule 144 or Rule 701, these restricted securities will be available for sale in the public market as follows:

- beginning on the date of this prospectus, all shares of common stock sold in this offering will be immediately available for sale in the public market; and
- beginning 181 days after the date of this prospectus, additional shares of common stock will become eligible for sale in the public market, of which shares will be held by affiliates and will be subject to the volume and other restrictions of Rule 144, as described below.

Lock-Up Agreements

Our executive officers, directors and substantially all of our stockholders, including the selling stockholders, have entered into lock-up agreements with the underwriters of this offering under which they have agreed that, subject to certain exceptions, without the prior written consent of J.P. Morgan Securities LLC and Merrill Lynch, Pierce, Fenner & Smith Incorporated, they will not dispose of or hedge any shares or any securities convertible into or exchangeable for shares of common stock for a period of 180 days from the date of this prospectus. See the section titled "Underwriting" for additional information.

J.P. Morgan Securities LLC and Merrill Lynch, Pierce, Fenner & Smith Incorporated, may, in their discretion, release any of the securities subject to these lock-up agreements at any time without notice. Following the expiration of the lock-up period, and assuming that the representatives of the underwriters do not release any parties from these agreements, all of the shares of our common stock that are restricted securities or are held by our affiliates as of the date of this prospectus will be eligible for sale in the public market subject to the limitations of Rule 144 under the Securities Act.

Rule 144

In general, under Rule 144 as currently in effect, once we have been subject to the public company reporting requirements of Section 13 or Section 15(d) of the Exchange Act for at least 90 days, a person who is not deemed to have been one of our affiliates for purposes of the Securities Act at any time during the 90 days preceding a sale and who has beneficially owned the shares proposed to be sold for at least six months, including the holding period of any prior owner other than our affiliates, is entitled to sell those shares without complying with the manner of sale, volume limitation or notice provisions of Rule 144, subject to compliance with the public information requirements of Rule 144. If such a person has beneficially owned the shares proposed to be sold for at least one year, including the holding period of any prior owner other than our affiliates, then that person would be entitled to sell those shares without complying with any of the requirements of Rule 144.

In general, under Rule 144, as currently in effect, and upon expiration of the lock-up agreements described above, our affiliates or persons selling shares on behalf of our affiliates are entitled to sell within any three-month period, a number of shares that does not exceed the greater of:

- 1% of the number of shares of our common stock then outstanding, which will equal approximately shares immediately after this offering, assuming no exercise by the underwriters' option to purchase additional shares; or
- the average weekly trading volume of our common stock during the four calendar weeks preceding the filing of a notice on Form 144 with respect to that sale;

provided, in each case, that we have been subject to the Exchange Act periodic reporting requirements for at least 90 days before the sale. Sales under Rule 144 by our affiliates or persons selling shares on behalf of our affiliates are also subject to certain manner of sale provisions and notice requirements and to the availability of current public information about us.

Rule 701

Rule 701 generally allows a stockholder who purchased shares of our common stock pursuant to a written compensatory plan or contract and who is not deemed to have been an affiliate of our company during the immediately preceding 90 days to sell these shares in reliance upon Rule 144, but without being required to comply with the public information, holding period, volume limitation or notice provisions of Rule 144. Rule 701 also permits affiliates of our company to sell their Rule 701 shares under Rule 144 without complying with the holding period requirements of Rule 144. All holders of Rule 701 shares, however, are required by that rule to wait until 90 days after the date of this prospectus before selling those shares pursuant to Rule 701.

Registration Rights

Pursuant to a registration rights agreement, the holders of an aggregate of shares of our common stock as of , 2018 (including shares issuable upon the conversion of our outstanding convertible preferred stock immediately prior to the completion of this offering), or their transferees, will be entitled to certain rights with respect to the registration of the offer and sale of those shares under the Securities Act. See "Description of Capital Stock—Registration Rights" for a description of these registration rights. If the offer and sale of these shares is registered, the shares will be freely tradable without restriction under the Securities Act, and a large number of shares may be sold into the public market.

Stock and Option Plans

Following the completion of this offering, we intend to file a registration statement on Form S-8 under the Securities Act to register shares of our common stock issued or reserved for issuance under our 2007 Stock Plan, 2019 Equity Incentive Plan and 2019 Employee Stock Purchase Plan, or the Plans.

The registration statement on Form S-8 will become effective immediately upon filing, and shares covered by such registration statement will thereupon be eligible for sale in the public markets, subject to vesting restrictions, the lock-up agreements described above and Rule 144 limitations applicable to affiliates. See “Executive Compensation—Employee Benefit and Stock Plans” for additional information.

MATERIAL U.S. FEDERAL INCOME AND ESTATE TAX CONSEQUENCES FOR NON-U.S. HOLDERS OF OUR COMMON STOCK

The following is a general discussion of the material U.S. federal income tax consequences to non-U.S. holders with respect to their ownership and disposition of shares of our common stock purchased in this offering. This discussion is for general information only, is not tax advice, and does not purport to be a complete analysis of all potential tax considerations. Accordingly, all prospective non-U.S. holders of our common stock should consult their tax advisors with respect to the U.S. federal, state, local and non-U.S. tax consequences of the purchase, ownership and disposition of our common stock. This discussion is based on current provisions of the U.S. Internal Revenue Code of 1986, as amended (the "Code"), existing and proposed U.S. Treasury Regulations promulgated thereunder, current administrative rulings and judicial decisions, in effect as of the date of this prospectus, all of which are subject to change, possibly with retroactive effect, or to differing interpretation. Any change could alter the tax consequences to non-U.S. holders described in this prospectus. We assume in this discussion that a non-U.S. holder holds shares of our common stock as a capital asset within the meaning of Section 1221 of the Code (generally, property held for investment).

This discussion does not address all aspects of U.S. federal income taxation that may be relevant to a particular non-U.S. holder in light of that non-U.S. holder's individual circumstances, nor does it address any aspects of state, local or non-U.S. income taxes or any non-income taxes other than to the limited extent set forth below. This discussion also does not address the potential application of the alternative minimum tax, the Medicare contribution tax on net investment income, or any specific tax consequences that may be relevant to a non-U.S. holder in light of such holder's particular circumstances and does not address the special tax rules applicable to particular non-U.S. holders, such as:

- insurance companies;
- tax-exempt organizations or governmental organizations;
- banks or other financial institutions;
- brokers or dealers in securities, and traders in securities that use a mark-to-market method of accounting for their securities holdings;
- partnerships or entities classified as partnerships for U.S. federal income tax purposes and other pass-through entities;
- tax-qualified retirement plans;
- persons that own or are deemed to own more than 5% of our capital stock (except to the extent specifically set forth below);
- "controlled foreign corporations" or "passive foreign investment companies";
- corporations that accumulate earnings to avoid U.S. federal income tax;
- owners that hold our common stock as part of a straddle, hedge, conversion transaction, synthetic security or other integrated investment;
- persons who acquired our common stock pursuant to the exercise of a stock option or other compensatory transactions;

- persons subject to special tax accounting rules as a result of any item of gross income with respect to our common stock being taken into account in an “applicable financial statement” (as defined in Section 451(b) of the Code);
- certain former citizens or long-term residents of the United States; or
- persons deemed to sell our common stock under the constructive sale provisions of the Code.

In addition, if a partnership or entity classified as a partnership for U.S. federal tax purposes holds our common stock, the tax treatment of a partner generally will depend on the status of the partner, upon the activities of the partnership and upon certain determinations made at the partner level. Accordingly, partnerships that hold our common stock, entities classified as partnerships for U.S. federal income tax purposes and other pass-through entities, as well as partners or members in such entities should consult their tax advisors. There can be no assurance that the Internal Revenue Service (“IRS”) will not challenge one or more of the tax consequences described herein, and we have not obtained, and do not intend to obtain, an opinion of counsel or ruling from the IRS with respect to the U.S. federal income tax consequences to a non-U.S. holder of the purchase, ownership or disposition of our common stock. We urge prospective investors to consult with their tax advisors regarding the U.S. federal, state, local and non-U.S. income and other tax considerations of purchasing, owning and disposing of shares of our common stock.

Non-U.S. Holder Defined

For purposes of this discussion, except as modified for estate tax purposes, a non-U.S. holder means a beneficial owner of our common stock, other than a partnership or other entity classified as a partnership for U.S. federal income tax purposes, that is not, for U.S. federal income tax purposes:

- an individual who is a citizen or resident of the United States;
- a corporation created or organized in the United States or under the laws of the United States or of any state thereof or the District of Columbia;
- an estate, the income of which is subject to U.S. federal income tax regardless of its source; or
- a trust (x) whose administration is subject to the primary supervision of a U.S. court and which has one or more U.S. persons who have the authority to control all substantial decisions of the trust, or (y) which has made a valid election to be treated as a U.S. person.

Distributions on Our Common Stock

We have never declared or paid, and do not anticipate declaring or paying, any cash dividends on any of our capital stock. However, if we do make distributions on our common stock, those payments generally will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. If a distribution exceeds both our current and accumulated earnings and profits, the excess will be treated as a tax-free return of the non-U.S. holder’s capital, and will reduce such holder’s basis in our common stock, but not below zero. Any remaining excess will be treated as capital gain, subject to the tax treatment described below in “—Gain on Sale, Exchange or Other Disposition of Our Common Stock.” Except as otherwise described below in the sections on effectively connected income in the next paragraph, and the sections titled "–Backup Withholding and Information Reporting" and "–Foreign Accounts." Dividends paid to a non-U.S. holder generally will be subject to withholding of U.S. federal income tax at a 30% rate or such lower rate as may be provided by an applicable income tax treaty between the United States and such holder’s country of residence.

Dividends that are treated as effectively connected with a trade or business conducted by a non-U.S. holder within the United States (and, if an applicable income tax treaty so provides, are also attributable

to a permanent establishment or a fixed base maintained within the United States by such non-U.S. holder) are generally exempt from the 30% withholding tax if the non-U.S. holder satisfies applicable certification and disclosure requirements. However, such U.S. effectively connected income, net of specified deductions and credits, is taxed at the same graduated U.S. federal income tax rates applicable to U.S. persons. Any U.S. effectively connected income received by a non-U.S. holder that is a corporation may also, under certain circumstances, be subject to an additional branch profits tax at a 30% rate or such lower rate as may be provided by an applicable income tax treaty between the United States and such holder's country of residence.

In order to claim the benefit of a tax treaty or to claim exemption from withholding because dividends paid on our common stock are effectively connected with the conduct of a trade or business in the United States, a non-U.S. holder must provide a properly executed IRS Form W-8BEN or IRS Form W-8BEN-E for treaty benefits or IRS Form W-8ECI for effectively connected income, or such successor forms as the IRS designates, prior to the payment of dividends. These forms must be periodically updated. If a non-U.S. holder holds our common stock through a financial institution or other agent acting on such holder's behalf, the non-U.S. holder will be required to provide appropriate documentation to the agent, which then will be required to provide certification to the applicable withholding agent, either directly or through other intermediaries. Non-U.S. holders may be eligible to obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS.

Gain on Sale, Exchange or Other Disposition of Our Common Stock

Subject to the discussion below regarding backup withholding and foreign accounts, a non-U.S. holder generally will not be subject to any U.S. federal income tax on any gain realized upon such holder's sale, exchange or other disposition of shares of our common stock unless:

- the gain is effectively connected with a U.S. trade or business (and, if an applicable income tax treaty so provides, is also attributable to a permanent establishment or a fixed base maintained within the United States by such non-U.S. holder), in which case the graduated U.S. federal income tax rates applicable to U.S. persons will apply, and, if the non-U.S. holder is a foreign corporation, the additional branch profits tax described above in "—Distributions on Our Common Stock" may also apply;
- the non-U.S. holder is a nonresident alien individual who is present in the United States for 183 days or more in the calendar year of the disposition and certain other conditions are met, in which case the non-U.S. holder will be subject to a 30% tax on the net gain derived from the disposition, which may be offset by U.S.-source capital losses of the non-U.S. holder, if any; or
- we are or have been, at any time during the five-year period preceding such disposition (or the non-U.S. holder's holding period, if shorter) a "United States real property holding corporation" (a "USRPHC").

We believe that we have not been and are not currently, and we do not anticipate becoming in the future, a USRPHC for U.S. federal income tax purposes, and the remainder of this discussion so assumes. Because the determination of whether we are a USRPHC depends on the fair market value of our U.S. real property relative to the fair market value of our other business assets, there can be no assurance that we will not become a USRPHC in the future. Even if we are or become a USRPHC, however, as long as our common stock is regularly traded on an established securities market, as to which there can be no assurance, a non-U.S. holder will only be subject to tax under these rules if such non-U.S. holder actually or constructively holds more than 5% of such regularly-traded common stock at any time during the shorter of the five-year period preceding such holder's disposition of, or such holder's holding period for, our common stock.

Federal Estate Tax

Shares of our common stock beneficially owned by an individual who is not a citizen or resident of the United States (as defined for U.S. federal estate tax purposes) at the time of death will generally be included in the decedent's gross estate for U.S. federal estate tax purposes, unless an applicable estate tax treaty provides otherwise.

Backup Withholding and Information Reporting

Generally, we must report annually to the IRS the amount of dividends paid to each non-U.S. holder, the name and address of such non-U.S. holder, and the amount of tax withheld, if any. A similar report will be sent to each non-U.S. holder. Pursuant to applicable income tax treaties or other agreements, the IRS may make these reports available to tax authorities in such non-U.S. holder's country of residence.

Payments of dividends on or of proceeds from the disposition of our common stock may be subject to additional information reporting and backup withholding at a current rate of 24% unless a non-U.S. holder establishes an exemption, for example, by properly certifying its non-U.S. status on an IRS Form W-8BEN or IRS Form W-8BEN-E or another appropriate version of IRS Form W-8. Notwithstanding the foregoing, backup withholding and information reporting may apply if the applicable withholding agent has actual knowledge, or reason to know, that such holder is a U.S. person.

Backup withholding is not an additional tax; rather, the U.S. federal income tax liability of persons subject to backup withholding will be reduced by the amount of tax withheld. If withholding results in an overpayment of taxes, a refund or credit may generally be obtained from the IRS, provided that the required information is furnished to the IRS in a timely manner.

Foreign Accounts

The Foreign Account Tax Compliance Act, or FATCA, generally imposes a U.S. federal withholding tax of 30% on dividends on and the gross proceeds from a sale or other disposition of our common stock paid to a "foreign financial institution" (as specially defined under these rules), unless otherwise provided by the Treasury Secretary or such institution enters into an agreement with the U.S. government to, among other things, withhold on certain payments and to collect and provide to the U.S. tax authorities substantial information regarding the U.S. account holders of such institution (which include certain equity and debt holders of such institution, as well as certain account holders that are foreign entities with U.S. owners) or otherwise establishes an exemption. FATCA also generally imposes a U.S. federal withholding tax of 30% on dividends on and the gross proceeds from a sale or other disposition of our common stock paid to a "non-financial foreign entity" (as specifically defined for purposes of these rules) unless otherwise provided by the Treasury Secretary or such entity provides the withholding agent with a certification identifying certain substantial direct and indirect U.S. owners of the entity, certifies that there are none or otherwise establishes an exemption. The withholding provisions under FATCA generally apply to dividends on our common stock. The Treasury Secretary has issued proposed regulations providing that the withholding provisions under FATCA do not apply with respect to the gross proceeds from a sale or other disposition of our common stock, which may be relied upon by taxpayers until final regulations are issued. Under certain circumstances, a non-U.S. holder might be eligible for refunds or credits of such taxes. An intergovernmental agreement between the United States and an applicable foreign country may modify the requirements described in this paragraph. Prospective investors are encouraged to consult with their tax advisors regarding the possible implications of FATCA on their investment in our common stock.

Each prospective investor should consult its tax advisor regarding the particular U.S. federal, state and local and non-U.S. tax consequences of purchasing, holding and disposing of our common stock, including the consequences of any proposed change in applicable laws.

UNDERWRITING

We are offering the shares of common stock described in this prospectus through a number of underwriters. J.P. Morgan Securities LLC and Merrill Lynch, Pierce, Fenner & Smith Incorporated are acting as joint book-running managers of the offering and as representatives of the underwriters. We and the selling stockholders have entered into an underwriting agreement with the underwriters. Subject to the terms and conditions of the underwriting agreement, we have agreed to sell to the underwriters, and each underwriter has severally agreed to purchase, at the public offering price less the underwriting discounts and commissions set forth on the cover page of this prospectus, the number of shares of common stock listed next to its name in the following table:

Name	Number of Shares
J.P. Morgan Securities LLC	
Merrill Lynch, Pierce, Fenner & Smith Incorporated	
BMO Capital Markets Corp.	
Stifel Nicolaus & Company, Incorporated	
Total	

The underwriters are committed to purchase all the shares of common stock offered by us if they purchase any shares. The underwriting agreement also provides that if an underwriter defaults, the purchase commitments of non-defaulting underwriters may also be increased or the offering may be terminated.

The underwriters propose to offer the shares of common stock directly to the public at the initial public offering price set forth on the cover page of this prospectus and to certain dealers at that price less a concession not in excess of $ per share. Any such dealers may resell shares to certain other brokers or dealers at a discount of up to $ per share from the initial public offering price. After the initial public offering of the shares, if all of the shares of common stock are not sold at the initial public offering price, the underwriters may change the offering price and other selling terms. Sales of shares of common stock made outside of the United States may be made by affiliates of the underwriters.

The underwriters have an option to buy up to additional shares of common stock from the selling stockholders. The underwriters have 30 days from the date of this prospectus to exercise this option to purchase additional shares. If any shares are purchased with this option, the underwriters will purchase shares in approximately the same proportion as shown in the table above. If any additional shares of common stock are purchased, the underwriters will offer the additional shares on the same terms as those on which the shares are being offered.

The underwriting fee is equal to the public offering price per share of common stock less the amount paid by the underwriters to us and the selling stockholders per share of common stock. The underwriting fee is $ per share. The following table shows the per share and total underwriting discounts and commissions to be paid to the underwriters by us and the selling stockholders assuming both no exercise and full exercise of the underwriters' option to purchase additional shares from the selling stockholders.

	Paid by the Company		Paid by the selling stockholders	
	Without Option	With Full Option Exercise	Without Option	With Full Option Exercise
Per Share	$	$	$	$
Total	$	$	$	$

We estimate that the total expenses of this offering, including registration, filing and listing fees, printing fees and legal and accounting expenses, but excluding the underwriting discounts and commissions, will be approximately $. We have agreed to reimburse the underwriters for certain expenses incurred in connection with this offering in an amount of up to $.

A prospectus in electronic format may be made available on the web sites maintained by one or more underwriters, or selling group members, if any, participating in the offering. The underwriters may agree to allocate a number of shares to underwriters and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the representatives to underwriters and selling group members that may make Internet distributions on the same basis as other allocations.

We have agreed that, subject to certain exceptions, we will not (i) offer, pledge, announce the intention to sell, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase or otherwise dispose of, directly or indirectly, or file with the SEC a registration statement under the Securities Act relating to, any shares of our common stock or securities convertible into or exchangeable or exercisable for any shares of our common stock, or publicly disclose the intention to make any offer, sale, pledge, disposition or filing, or (ii) enter into any swap or other arrangement that transfers all or a portion of the economic consequences associated with the ownership of any shares of common stock or any such other securities (regardless of whether any of these transactions are to be settled by the delivery of shares of common stock or such other securities, in cash or otherwise), in each case without the prior written consent of J.P. Morgan Securities LLC and Merrill Lynch, Pierce, Fenner & Smith Incorporated for a period of 180 days after the date of this prospectus, other than the shares of our common stock to be sold hereunder and any shares of our common stock issued upon the exercise of options granted under our existing stock-based compensation plans.

Our directors, executive officers and substantially all of our holders of our common stock and securities convertible into or exercisable or exchangeable for shares of our common stock have entered into lock-up agreements with the underwriters prior to the commencement of this offering pursuant to which each of these persons or entities, with certain exceptions, for a period of 180 days after the date of this prospectus, may not, without the prior written consent of J.P. Morgan Securities LLC and Merrill Lynch, Pierce, Fenner & Smith Incorporated, (1) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, any shares of our common stock or any securities convertible into or exercisable or exchangeable for our common stock (including, without limitation, common stock or such other securities which may be deemed to be beneficially owned by such directors, executive officers and holders in accordance with the rules and regulations of the SEC and securities which may be issued upon exercise of a stock option or warrant), (2) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of

the common stock or such other securities, whether any such transaction described in clause (1) or (2) above is to be settled by delivery of common stock or such other securities, in cash or otherwise, or (3) make any demand for or exercise any right with respect to the registration of any shares of common stock or any security convertible into or exercisable or exchangeable for common stock.

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act.

We have applied to list our common stock on The NASDAQ Stock Market under the symbol “SILK.”

In connection with this offering, the underwriters may engage in stabilizing transactions, which involves making bids for, purchasing and selling shares of common stock in the open market for the purpose of preventing or retarding a decline in the market price of the common stock while this offering is in progress. These stabilizing transactions may include making short sales of the common stock, which involves the sale by the underwriters of a greater number of shares of common stock than they are required to purchase in this offering, and purchasing shares of common stock on the open market to cover positions created by short sales. Short sales may be “covered” shorts, which are short positions in an amount not greater than the underwriters’ option to purchase additional shares referred to above, or may be “naked” shorts, which are short positions in excess of that amount. The underwriters may close out any covered short position either by exercising their option to purchase additional shares, in whole or in part, or by purchasing shares in the open market. In making this determination, the underwriters will consider, among other things, the price of shares available for purchase in the open market compared to the price at which the underwriters may purchase shares through the option to purchase additional shares. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market that could adversely affect investors who purchase in this offering. To the extent that the underwriters create a naked short position, they will purchase shares in the open market to cover the position.

The underwriters have advised us that, pursuant to Regulation M of the Securities Act of 1933, they may also engage in other activities that stabilize, maintain or otherwise affect the price of the common stock, including the imposition of penalty bids. This means that if the representatives of the underwriters purchase common stock in the open market in stabilizing transactions or to cover short sales, the representatives can require the underwriters that sold those shares as part of this offering to repay the underwriting discount received by them.

These activities may have the effect of raising or maintaining the market price of the common stock or preventing or retarding a decline in the market price of the common stock, and, as a result, the price of the common stock may be higher than the price that otherwise might exist in the open market. If the underwriters commence these activities, they may discontinue them at any time. The underwriters may carry out these transactions on The NASDAQ Stock Market, in the over the counter market or otherwise.

Prior to this offering, there has been no public market for our common stock. The initial public offering price will be determined by negotiations between us and the representatives of the underwriters. In determining the initial public offering price, we and the representatives of the underwriters expect to consider a number of factors including:

- the information set forth in this prospectus and otherwise available to the representatives;
- our prospects and the history and prospects for the industry in which we compete;
- an assessment of our management;
- our prospects for future earnings;
- the general condition of the securities markets at the time of this offering;

- the recent market prices of, and demand for, publicly traded common stock of generally comparable companies; and
- other factors deemed relevant by the underwriters and us.

Neither we nor the underwriters can assure investors that an active trading market will develop for shares of our common stock, or that the shares will trade in the public market at or above the initial public offering price.

Other than in the United States, no action has been taken by us or the underwriters that would permit a public offering of the securities offered by this prospectus in any jurisdiction where action for that purpose is required. The securities offered by this prospectus may not be offered or sold, directly or indirectly, nor may this prospectus or any other offering material or advertisements in connection with the offer and sale of any such securities be distributed or published in any jurisdiction, except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction.

Persons into whose possession this prospectus comes are advised to inform themselves about and to observe any restrictions relating to the offering and the distribution of this prospectus. This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any securities offered by this prospectus in any jurisdiction in which such an offer or a solicitation is unlawful.

Notice to Prospective Investors in the European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a “Relevant Member State”), with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State, no offer of shares may be made to the public in that Relevant Member State other than:

A. to any legal entity which is a qualified investor as defined in the Prospectus Directive;

B. to fewer than 150 natural or legal persons (other than qualified investors as defined in the Prospectus Directive), subject to obtaining the prior consent of the underwriters; or

C. in any other circumstances falling within Article 3(2) of the Prospectus Directive,

provided that no such offer of shares shall require us or any underwriter to publish a prospectus pursuant to Article 3 of the Prospectus Directive or supplement a prospectus pursuant to Article 16 of the Prospectus Directive and each person who initially acquires any shares or to whom any offer is made will be deemed to have represented, acknowledged and agreed to and with each of the underwriters and us that it is a “qualified investor” within the meaning of the law in that Relevant Member State implementing Article 2(1)(e) of the Prospectus Directive.

In the case of any shares being offered to a financial intermediary as that term is used in Article 3(2) of the Prospectus Directive, each such financial intermediary will be deemed to have represented, acknowledged and agreed that the shares acquired by it in the offer have not been acquired on a non-discretionary basis on behalf of, nor have they been acquired with a view to their offer or resale to, persons in circumstances which may give rise to an offer of any shares to the public other than their offer or resale in a Relevant Member State to qualified investors as so defined or in circumstances in which the prior consent of the representatives has been obtained to each such proposed offer or resale.

For the purposes of this provision, the expression an “offer of shares to the public” in relation to any shares in any Relevant Member State means the communication in any form and by means of sufficient information on the terms of the offer and the shares to be offered so as to enable an investor to decide to purchase shares, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State, the expression “Prospectus Directive” means Directive

2003/71/EC (as amended, including by Directive 2010/73/EU), and includes any relevant implementing measure in the Relevant Member State.

We, the representatives and their affiliates will rely upon the truth and accuracy of the foregoing representations, acknowledgements and agreements.

This prospectus has been prepared on the basis that any offer of shares in any Relevant Member State will be made pursuant to an exemption under the Prospectus Directive from the requirement to publish a prospectus for offers of shares. Accordingly any person making or intending to make an offer in that Relevant Member State of shares which are the subject of the offering contemplated in this prospectus may only do so in circumstances in which no obligation arises for us or any of the underwriters to publish a prospectus pursuant to Article 3 of the Prospectus Directive in relation to such offer. Neither we nor the underwriters have authorized, nor do they authorize, the making of any offer of shares in circumstances in which an obligation arises for us or the underwriters to publish a prospectus for such offer.

Notice to Prospective Investors in the United Kingdom

This document is only being distributed only to, and is only directed at, and any offer subsequently made may only be directed at persons who are “qualified investors” (as defined in the Prospectus Directive) (i) who have professional experience in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended (the “Order”) and/or (ii) who are high net worth companies (or persons to whom it may otherwise be lawfully communicated) falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as “relevant persons”) or otherwise in circumstances which have not resulted and will not result in an offer to the public of the shares in the United Kingdom within the meaning of the Financial Services and Markets Act 2000.

Any person in the United Kingdom that is not a relevant person should not act or rely on the information included in this document or use it as basis for taking any action. In the United Kingdom, any investment or investment activity that this document relates to may be made or taken exclusively by relevant persons.

Notice to Prospective Investors in Switzerland

The shares may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange (“SIX”) or on any other stock exchange or regulated trading facility in Switzerland. This document has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this document nor any other offering or marketing material relating to the shares or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this document nor any other offering or marketing material relating to the offering, the Company, the shares have been or will be filed with or approved by any Swiss regulatory authority. In particular, this document will not be filed with, and the offer of shares will not be supervised by, the Swiss Financial Market Supervisory Authority FINMA (FINMA), and the offer of shares has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes (“CISA”). The investor protection afforded to acquirers of interests in collective investment schemes under the CISA does not extend to acquirers of shares.

Notice to Prospective Investors in the Dubai International Financial Centre

This document relates to an Exempt Offer in accordance with the Markets Rules 2012 of the Dubai Financial Services Authority ("DFSA"). This document is intended for distribution only to persons of a type specified in the Markets Rules 2012 of the DFSA. It must not be delivered to, or relied on by, any other person. The DFSA has no responsibility for reviewing or verifying any documents in connection with Exempt Offers. The DFSA has not approved this prospectus supplement nor taken steps to verify the information set forth herein and has no responsibility for this document. The securities to which this document relates may be illiquid and/or subject to restrictions on their resale. Prospective purchasers of the securities offered should conduct their own due diligence on the securities. If you do not understand the contents of this document you should consult an authorized financial advisor.

In relation to its use in the DIFC, this document is strictly private and confidential and is being distributed to a limited number of investors and must not be provided to any person other than the original recipient, and may not be reproduced or used for any other purpose. The interests in the securities may not be offered or sold directly or indirectly to the public in the DIFC.

Notice to Prospective Investors in Australia

No prospectus or other disclosure document (as defined in the Corporations Act 2001 (Cth) of Australia, or Corporations Act) in relation to the shares of common stock has been or will be lodged with the Australian Securities & Investments Commission, or ASIC. This document has not been lodged with ASIC and is only directed to certain categories of exempt persons. Accordingly, if you receive this document in Australia: (a) you confirm and warrant that you are either: (i) a "sophisticated investor" under section 708(8)(a) or (b) of the Corporations Act; (ii) a "sophisticated investor" under section 708(8)(c) or (d) of the Corporations Act and that you have provided an accountant's certificate to us which complies with the requirements of section 708(8)(c)(i) or (ii) of the Corporations Act and related regulations before the offer has been made; (iii) a person associated with the company under section 708(12) of the Corporations Act; or (iv) a "professional investor" within the meaning of section 708(11)(a) or (b) of the Corporations Act, and to the extent that you are unable to confirm or warrant that you are an exempt sophisticated investor, associated person or professional investor under the Corporations Act any offer made to you under this document is void and incapable of acceptance; and (b) you warrant and agree that you will not offer any of the shares of common stock for resale in Australia within 12 months of the shares of common stock being issued unless any such resale offer is exempt from the requirement to issue a disclosure document under section 708 of the Corporations Act.

Notice to Prospective Investors in Hong Kong

The shares of common stock may not be offered or sold in Hong Kong by means of any document other than (a) in circumstances which do not constitute an offer to the public within the meaning of the Companies Ordinance (Cap. 32, Laws of Hong Kong), (b) to "professional investors" as defined in the Securities and Futures Ordinance (Cap. 571, Laws of Hong Kong) and any rules made thereunder; or (c) in other circumstances which do not result in the document being a "prospectus" within the meaning of the Companies Ordinance (Cap. 32, Laws of Hong Kong). No advertisement, invitation or document relating to the shares of common stock may be issued or may be in the possession of any person for the purposes of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted to do so under the laws of Hong Kong) other than with respect to shares of common stock which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" within the meaning of the Securities and Futures Ordinance (Cap. 571, Laws of Hong Kong) and any rules made thereunder.

Notice to Prospective Investors in Japan

The shares of common stock have not been and will not be registered under the Financial Instruments and Exchange Law of Japan (Law No. 25 of 1948, as amended) and, accordingly, will not be offered or sold, directly or indirectly, in or into Japan, or for the benefit of any Japanese Person or to others for re-offering or resale, directly or indirectly, in Japan or to or for the benefit of any Japanese Person, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the Financial Instruments and Exchange Act and any other applicable laws, regulations and ministerial guidelines of Japan in effect at the relevant time. For the purposes of this paragraph, "Japanese Person" shall mean any person resident in Japan, including any corporation or other entity organized under the laws of Japan.

Notice to Prospective Investors in Singapore

This prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of shares of common stock may not be circulated or distributed, nor may the shares of common stock be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore (the "SFA"), (ii) to a relevant person pursuant to Section 275(1), or any person pursuant to Section 275(1A), and in accordance with the conditions specified in Section 275, of the SFA, or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the shares are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

(a) a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or

(b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor,

Securities (as defined in Section 239(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the shares pursuant to an offer made under Section 275 of the SFA except:

(a) to an institutional investor or to a relevant person defined in Section 275(2) of the SFA, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;

(b) where no consideration is or will be given for the transfer;

(c) where the transfer is by operation of law;

(d) as specified in Section 276(7) of the SFA; or

(e) as specified in Regulation 32 of the Securities and Futures (Offers of Investments) (Shares and Debentures) Regulations 2005 of Singapore.

Notice to Prospective Investors in Canada

The shares may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103

Registration Requirements, Exemptions and Ongoing Registrant Obligations. Any resale of the shares must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 (or, in the case of securities issued or guaranteed by the government of a non-Canadian jurisdiction, section 3A.4) of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

Other Relationships

The underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities.

Certain of the underwriters and their affiliates have provided in the past to us and our affiliates and may provide from time to time in the future certain commercial banking, financial advisory, investment banking and other services for us and such affiliates in the ordinary course of their business, for which they have received and may continue to receive customary fees and commissions. In addition, from time to time, certain of the underwriters and their affiliates may effect transactions for their own account or the account of customers, and hold on behalf of themselves or their customers, long or short positions in our debt or equity securities or loans, and may do so in the future.

In the ordinary course of their various business activities, the underwriters and their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers, and such investment and securities activities may involve securities and/or instruments of the Company. The underwriters and their respective affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

LEGAL MATTERS

Wilson Sonsini Goodrich & Rosati, P.C., Palo Alto, California will pass upon the validity of the shares of common stock offered by this prospectus. Certain members of, and investment partnerships comprised of members of, and persons associated with, Wilson Sonsini Goodrich & Rosati, P.C. own an interest representing less than one percent of the shares of our common stock. Latham & Watkins LLP, Costa Mesa, California is acting as counsel for the underwriters.

EXPERTS

The consolidated financial statements as of December 31, 2017 and for the year ended December 31, 2017 included in this prospectus have been so included in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the shares of common stock offered by this prospectus. This prospectus, which constitutes a part of the registration statement, does not include all of the information contained in the registration statement, some of which is contained in exhibits to the registration statement as permitted by the rules and regulations of the SEC. You should refer to the registration statement and its exhibits for additional information. Whenever we make references in this prospectus to any of our contracts, agreements or other documents, such references are not necessarily complete and you should refer to the exhibits attached to the registration statement for copies of the actual contract, agreement or other document.

You can read our SEC filings, including the registration statement and its exhibits, over the Internet at the SEC's web site at www.sec.gov. You may also read and copy any document we file with the SEC at its public reference facilities at 100 F Street, N.E., Washington, DC 20549. You may also obtain copies of the documents at prescribed rates by writing to the Public Reference Section of the SEC at 100 F Street, N.E., Washington, DC 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the public reference facilities.

When we complete this offering, we will be subject to the information reporting requirements of the Exchange Act, and we will file annual, quarterly and special reports, proxy statements and other information with the SEC. These reports, proxy statements and other information will be available for inspection and copying at the public reference room and website of the SEC referred to above. We also maintain a website at which you may access these materials free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. The information contained on our website is not a part of this prospectus.

Silk Road Medical, Inc.
Index to Consolidated Financial Statements
As of December 31, 2017 and the Year Ended December 31, 2017

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Silk Road Medical, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheet of Silk Road Medical, Inc. and its subsidiary as of December 31, 2017, and the related consolidated statement of operations and comprehensive loss, of redeemable convertible preferred stock and stockholders' deficit and of cash flows for the year then ended, including the related notes and financial statement schedule listed in the index appearing under Item 16(b) (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2017, and the results of its operations and its cash flows for the year then ended in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audit. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit of these consolidated financial statements in accordance with the standards of the PCAOB and in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud.

Our audit included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audit also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audit provides a reasonable basis for our opinion.

/s/ PricewaterhouseCoopers LLP

San Jose, California
December 19, 2018

We have served as the Company's auditor since 2013.

Silk Road Medical, Inc.
Consolidated Balance Sheet

	December 31, 2017
Assets	
Current assets:	
Cash and cash equivalents	$ 33,331,246
Accounts receivable, net of allowances of $610,819 at December 31, 2017	5,214,667
Inventories	3,248,109
Prepaid expenses and other current assets	279,452
Total current assets	42,073,474
Property and equipment, net	486,139
Restricted cash	509,954
Other non-current assets	16,800
Total assets	$ 43,086,367
Liabilities, redeemable convertible preferred stock and stockholders' deficit	
Current liabilities:	
Accounts payable	$ 1,545,518
Accrued liabilities	3,109,374
Total current liabilities	4,654,892
Long-term debt	27,589,038
Redeemable convertible preferred stock warrant liability	4,185,152
Total liabilities	36,429,082
Commitments and contingencies (Note 7)	
Redeemable convertible preferred stock issuable in series, $0.001 par value	
Shares authorized: 64,987,964 at December 31, 2017	
Shares issued and outstanding: 57,329,696 at December 31, 2017	
Liquidation preference: $120,991,113 at December 31, 2017	105,235,148
Stockholders' deficit:	
Common stock, $0.001 par value	
Shares authorized: 80,673,895 at December 31, 2017	
Shares issued and outstanding: 1,790,926 at December 31, 2017	1,791
Additional paid-in capital	2,976,274
Accumulated deficit	(101,555,928)
Total stockholders' deficit	(98,577,863)
Total liabilities and stockholders' deficit	$ 43,086,367

The accompanying notes are an integral part of these consolidated financial statements.

Silk Road Medical, Inc.
Consolidated Statement of Operations and Comprehensive Loss

	Year Ended December 31, 2017
Revenue	$ 14,257,674
Cost of goods sold	5,129,049
Gross profit	9,128,625
Operating expenses:	
Research and development	7,242,004
Selling, general and administrative	20,260,505
Total operating expenses	27,502,509
Loss from operations	(18,373,884)
Interest income	33,749
Interest expense	(3,942,982)
Other income (expense), net	2,926,917
Net loss and comprehensive loss	(19,356,200)
Net loss and comprehensive loss attributable to non-controlling interest	576
Net loss and comprehensive loss attributable to Silk Road Medical, Inc. common stockholders	$ (19,355,624)
Net loss per share attributable to Silk Road Medical, Inc. common stockholders, basic and diluted	$ (16.51)
Weighted average common shares used to compute net loss per share attributable to Silk Road Medical, Inc. common stockholders, basic and diluted	1,172,307

The accompanying notes are an integral part of these consolidated financial statements.

Silk Road Medical, Inc.
Consolidated Statement of Convertible Preferred Stock and Stockholders' Deficit

	Redeemable Convertible Preferred Stock		Common Stock		Additional Paid-in Capital	Accumulated Deficit	Non-controlling Interest	Total
	Shares	Amount	Shares	Amount				
Balances at December 31, 2016	38,745,636	$ 63,417,037	1,006,176	$ 1,006	$ 2,103,830	$ (82,200,304)	$ —	$(80,095,468)
Issuance of Series C convertible preferred stock, net of issuance costs	18,584,060	41,818,111	—	—	—	—	—	—
Exercise of stock options	—	—	784,750	785	337,262	—	—	338,047
Employee stock-based compensation	—	—	—	—	441,621	—	—	441,621
Nonemployee stock-based compensation	—	—	—	—	93,561	—	—	93,561
NeuroCo common stock issuance	—	—	—	—	—	—	576	576
Net loss and comprehensive loss	—	—	—	—	—	(19,355,624)	(576)	(19,356,200)
Balances at December 31, 2017	57,329,696	$105,235,148	1,790,926	$ 1,791	$ 2,976,274	$(101,555,928)	$ —	$(98,577,863)

The accompanying notes are an integral part of these consolidated financial statements.

Silk Road Medical, Inc.
Consolidated Statement of Cash Flows

	Year Ended December 31, 2017
Cash flows from operating activities	
Net loss	$ (19,356,200)
Adjustments to reconcile net loss to net cash used in operating activities:	
Depreciation and amortization expense	128,719
Stock-based compensation expense	535,182
Change in fair value of redeemable convertible warrant liability	(2,957,952)
Amortization of debt discount and debt issuance costs	89,561
Non-cash interest expense	1,704,624
Provision for accounts receivable allowances	423,055
Provision for excess and obsolete inventories	62,864
Changes in assets and liabilities	
Accounts receivable	(4,792,702)
Inventories	(2,408,061)
Prepaid expenses and other current assets	(9,370)
Accounts payable	678,037
Accrued liabilities	651,312
Net cash used in operating activities	(25,250,931)
Cash flows from investing activities	
Purchase of property and equipment	(444,762)
Restricted cash	(309,641)
Net cash used in investing activities	(754,403)
Cash flows from financing activities	
Proceeds from long-term debt	5,000,000
Proceeds from issuance of common stock	338,047
Non-controlling interest	576
Proceeds from issuance of redeemable convertible preferred stock, net of issuance costs	41,818,111
Net cash provided by financing activities	47,156,734
Net change in cash and cash equivalents	21,151,400
Cash and cash equivalents, beginning of year	12,179,846
Cash and cash equivalents, end of year	$ 33,331,246
Supplemental disclosure of cash flow information	
Cash paid for interest	$ 2,148,797
Non-cash investing and financing activities:	
Accounts payable for purchases of property and equipment	$ 13,558

The accompanying notes are an integral part of these consolidated financial statements.

1. Formation and Business of the Company

The Company

Silk Road Medical, Inc. (the “Company”) was incorporated in the state of Delaware on March 21, 2007. The Company has developed a technologically advanced, minimally-invasive solution for patients with carotid artery disease who are at risk for stroke. The Company's portfolio of TCAR products enable a new procedure, referred to as transcarotid artery revascularization, or TCAR, that combines the benefits of endovascular techniques and surgical principles. The Company's manufactures and sells in the United States its portfolio of TCAR products which are designed to provide direct access to the carotid artery, effective reduction in stroke risk throughout the procedure, and long-term restraint of carotid plaque. The Company commercialized its products in the United States in April 2016.

Liquidity

In the course of its activities, the Company has incurred losses and negative cash flows from operations since its inception. As of December 31, 2017, the Company had an accumulated deficit of $101,555,928. The Company expects to incur losses for the foreseeable future. The Company believes that its cash and cash equivalents of $33,331,246 at December 31, 2017, expected revenues and additional borrowings available under the loan agreement with CRG Partners III L.P. and certain of its affiliated funds (collectively “CRG”) will be sufficient to allow the Company to fund its current operations until at least December 31, 2019. Consistent with its operating plan, the Company will need to secure additional funding in the form of debt or equity financings to make strategic investments in its business; however, there can be no assurance that such efforts will be successful or that, in the event that they are successful, the terms and conditions of such financing will be favorable. If the Company’s revenue levels from its products are not sufficient or if the Company is unable to secure additional funding when desired, the Company may need to delay the development, commercialization and marketing of its products and scale back its business and operations. The Company’s ultimate success will largely depend on its ability to successfully commercialize its products and its ability to raise additional funding.

In September 2018, the Company drew down an additional $15,000,000 under its loan agreement with CRG, as described in Note 15.

2. Summary of Significant Accounting Policies

Basis of Preparation

The accompanying consolidated financial statements have been prepared in accordance with the accounting principles generally accepted in the United States of America (“U.S. GAAP”). The consolidated financial statements include the accounts of the Company and its consolidated subsidiary. All intercompany accounts and transactions have been eliminated in consolidation.

Principles of Consolidation

The consolidated financial statements of the Company include the accounts of Silk Road Medical, Inc. and its consolidated variable interest entity (“VIE”). All intercompany balances and transactions have been eliminated in consolidation. Disclosure regarding the Company’s participation in the VIE is included in Note 12, "Variable Interest Entity – NeuroCo”.

Variable Interest Entity

The Company has an interest in a VIE. Determining whether to consolidate a VIE requires judgment in assessing (i) whether an entity is a VIE and (ii) if the Company is the entity’s primary beneficiary and thus required to consolidate the entity. To determine if the Company is the primary beneficiary of a VIE, the Company evaluates whether it has (i) the power to direct the activities that most significantly impact the

VIE's economic performance and (ii) the obligation to absorb losses or the right to receive benefits of the VIE that could potentially be significant to the VIE. The Company's evaluation includes identification of significant activities and an assessment of its ability to direct those activities.

Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the amounts and disclosures reported in the financial statements. Management uses significant judgment when making estimates related to the common stock valuation and related stock-based compensation, the valuation of the redeemable convertible preferred stock warrants, the valuation of deferred tax assets, provisions for doubtful accounts receivable and excess and obsolete inventories, clinical trial accruals, and the reserves for sales returns. Management bases its estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Although these estimates are based on the Company's knowledge of current events and actions it may undertake in the future, actual results may ultimately materially differ from these estimates and assumptions.

Fair Value of Financial Instruments

The Company has evaluated the estimated fair value of its financial instruments as of December 31, 2017. Financial instruments consist of cash equivalents, accounts receivable, accounts payable, and other current liabilities and borrowings. The carrying amounts of cash equivalents, accounts receivable, accounts payable and accrued liabilities approximate their respective fair values because of the short-term nature of these instruments. Fair value accounting is applied to the redeemable convertible preferred stock warrant liability.

Cash and Cash Equivalents

The Company considers all highly liquid investments with an original maturity of three months or less at the time of purchase to be cash equivalents. Cash equivalents are considered available-for-sale marketable securities and are recorded at fair value, based on quoted market prices. As of December 31, 2017, the Company's cash equivalents are entirely comprised of investments in money market funds.

Restricted Cash

At December 31, 2017, deposits of $509,954 were restricted from withdrawal. The restricted cash balances of the Company are associated with its corporate credit card and facility lease.

Concentration of Credit Risk, and Other Risks and Uncertainties

Financial instruments that potentially subject the Company to credit risk consist of cash and cash equivalents and accounts receivable to the extent of the amounts recorded on the consolidated balance sheet.

The Company's policy is to invest in money market funds, which are classified as cash equivalents on the consolidated balance sheet. The Company's cash are held in Company accounts at two financial institutions and such amounts may exceed federally insured limits. The Company's money market funds are invested in highly rated money market funds.

The Company provides for uncollectible amounts when specific credit problems are identified. In doing so, the Company analyzes historical bad debt trends, customer credit worthiness, current economic trends and changes in customer payment patterns when evaluating the adequacy of the allowance for doubtful accounts.

The Company's accounts receivable are due from a variety of health care organizations in the United States. At December 31, 2017, no customer represented 10% or more of the Company's accounts receivable. For the year ended December 31, 2017, there were no customers that represented 10% or more of revenue.

The Company manufactures certain of its commercial products in-house. Certain of the Company's product components and sub-assemblies continue to be manufactured by sole suppliers, the most significant of which is the ENROUTE stent. Disruption in component or sub-assembly supply from these manufacturers or from in-house production would have a negative impact on the Company's financial position and results of operations.

The Company is subject to certain risks, including that its devices may not be approved or cleared for marketing by governmental authorities or be successfully marketed. There can be no assurance that the Company's products will achieve widespread adoption in the marketplace, nor can there be any assurance that existing devices or any future devices can be developed or manufactured at an acceptable cost and with appropriate performance characteristics. The Company is also subject to risks common to companies in the medical device industry, including, but not limited to, new technological innovations, dependence upon third-party payers to provide adequate coverage and reimbursement, dependence on key personnel and suppliers, protection of proprietary technology, product liability claims, and compliance with government regulations.

Existing or future devices developed by the Company may require approvals or clearances from the FDA or international regulatory agencies. In addition, in order to continue the Company's operations, compliance with various federal and state laws is required. If the Company were denied or delayed in receiving such approvals or clearances, it may be necessary to adjust operations to align with the Company's currently approved portfolio. If clearance for the products in the current portfolio were withdrawn by the FDA, this would have a material adverse impact on the Company.

Accounts Receivable

Trade accounts receivable are recorded at the invoiced amount and do not bear interest. The Company estimates allowances for doubtful accounts and for product returns. Specifically, the Company makes estimates on the collectability of customer accounts and sales returns and allowances based primarily on analysis of historical trends and experience and changes in customers' financial condition. The Company uses its judgment, based on the best available facts and circumstances, and records an allowance against amounts due to reduce the receivable to the amount that is expected to be collected. These specific allowances are reevaluated and adjusted as additional information is received that impacts the amount reserved. To date, the Company has not experienced material credit-related losses.

Inventories

Inventories are valued at the lower of cost to purchase or manufacture the inventory or net realizable value. Cost is determined using the first-in, first-out method for all inventories. Net realizable value is determined as the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal and transportation. The Company regularly reviews inventory quantities in consideration of actual loss experiences, projected future demand, and remaining shelf life to record a provision for excess and obsolete inventory when appropriate. The Company's policy is to write down inventory that has become obsolete, inventory that has a cost basis in excess of its expected lower of cost or net realizable value, and inventory in excess of expected requirements. The estimate of excess quantities is judgmental and primarily dependent on the Company's estimates of future demand for a particular product. If the estimate of future demand is too high, the Company may have to increase the reserve for excess inventory for that product and record a charge to the cost of goods sold.

Property and Equipment

Property and equipment are recorded at cost less accumulated depreciation or amortization. Repairs and maintenance costs are expensed as incurred. Depreciation and amortization are calculated using the straight-line method over the estimated useful lives of the assets, typically three years. Leasehold improvements are amortized using the straight-line method over the shorter of the lease term or estimated useful economic life of the asset. When assets are retired or otherwise disposed of, the cost and accumulated depreciation are removed from the balance sheet and any resulting gain or loss is reflected in operations in the period realized.

Impairment of Long-Lived Assets

The Company reviews long-lived assets, including property and equipment, for impairment whenever events or changes in business circumstances indicate that the carrying amount of the assets may not be fully recoverable. If indicators of impairment exist, an impairment loss would be recognized when estimated undiscounted future cash flows expected to result from the use of the assets and their eventual disposition are less than their carrying amount. Impairment, if any, is measured as the amount by which the carrying amount of the long-lived assets exceeds their fair value. The Company did not record any impairment of long-lived assets for the year ended December 31, 2017.

Redeemable Convertible Preferred Stock Warrant Liability

The Company accounts for its warrants for shares of redeemable convertible preferred stock as a liability based upon the characteristics and provisions of each instrument. Redeemable convertible preferred stock warrants classified as a liability are initially recorded at their fair value on the date of issuance and are subject to remeasurement at each subsequent balance sheet date. Any change in fair value as a result of a remeasurement is recognized as a component of other income (expense), net in the consolidated statements of operations and comprehensive loss.

Redeemable Convertible Preferred Stock

The Company records its redeemable convertible preferred stock at fair value on the dates of issuance, net of issuance costs. A redemption event will only occur upon the liquidation or winding up of the Company, a greater than 50% change in control, or sale of substantially all of the assets of the Company. In the event of a change of control of the Company, proceeds received from the sale of such shares will be distributed in accordance with the liquidation preferences set forth in the Company's amended and restated certificate of incorporation unless the holders of redeemable convertible preferred stock otherwise agree or have converted their shares into shares of common stock. Therefore, redeemable convertible preferred stock is classified outside of stockholders' deficit on the balance sheet as events triggering the liquidation preferences are not solely within the Company's control. The Company is not required to adjust the carrying values of the redeemable convertible preferred stock to the redemption value of such shares since it is uncertain whether or when a redemption event will occur. Subsequent adjustments to increase the carrying values to the redemption values will be made only when it becomes probable that such redemption will occur.

Revenue Recognition

The Company's revenue is generated from the sale of its products to hospitals and medical centers through direct sales representatives. The Company recognizes revenue when all of the following criteria are met:

- persuasive evidence of an arrangement exists;
- the sales price is fixed or determinable;

- collection of the relevant receivable is reasonably assured at the time of sale; and
- delivery has occurred or services have been rendered.

The Company recognizes revenue when title to the goods and risk of loss transfers to the customer, which is upon delivery of the product under the Company's standard terms and conditions. The Company estimates reductions in revenue for potential returns of products by customers. In making such estimates, management analyzes historical returns, current economic trends and changes in customer demand and acceptance of its products. The Company expenses shipping and handling costs as incurred and includes them in the cost of goods sold. In those cases where the Company bills shipping and handling costs to customers, it will classify the amounts billed as a component of revenue.

Cost of Goods Sold

The Company manufactures certain of its portfolio of TCAR products at its facility and purchases other products from third party manufacturers. Cost of goods sold consists primarily of costs related to materials, components and subassemblies, manufacturing overhead costs, direct labor, reserves for excess, obsolete and non-sellable inventories as well as distribution-related expenses. A significant portion of the Company's cost of goods sold currently consists of manufacturing overhead costs. These overhead costs include the cost of quality assurance, material procurement, inventory control, facilities, equipment and operations supervision and management. Cost of goods sold also includes depreciation expense for production equipment and certain direct costs such as shipping costs and royalties.

Research and Development

The Company expenses research and development costs as incurred. Research and development expenses consist primarily of engineering, product development, clinical studies to develop and support the Company's products, regulatory expenses, medical affairs and other costs associated with products and technologies that are in development. Research and development expenses include employee compensation, including stock-based compensation, supplies, consulting, prototyping, testing, materials, travel expenses, depreciation and an allocation of facility overhead expenses. Additionally, research and development expenses include costs associated with our clinical studies including clinical trial design, clinical site reimbursement, data management, travel expenses and the cost of products used for clinical trials and internal and external costs associated with the Company's regulatory compliance and quality assurance functions, including the costs of outside consultants and contractors that assist in the process of submitting and maintaining regulatory filings, and overhead costs.

Clinical Trials

The Company accrues and expenses costs for its clinical trial activities performed by third parties, including clinical research organizations and other service providers, based upon estimates of the work completed over the life of the individual study in accordance with associated agreements. The Company determines these estimates through discussion with internal personnel and outside service providers as to progress or stage of completion of trials or services pursuant to contracts with clinical research organizations and other service providers and the agreed-upon fee to be paid for such services.

Advertising Costs

The Company expenses advertising costs as incurred. Advertising costs include design and production costs, including website development, physician and patient testimonial videos, written media campaigns, and other items. Advertising costs of $218,000 were expensed during the year ended December 31, 2017.

Foreign Currency

The Company records net gains and losses resulting from foreign exchange transactions as a component of foreign currency exchange gains or losses in other income (expense), net. The Company had no material foreign currency exchange gains or losses during the year ended December 31, 2017.

Stock–Based Compensation

The Company accounts for stock-based employee compensation in accordance with Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“ASC”) 718, “Compensation-Stock Compensation.” ASC 718 requires the recognition of compensation expense, using a fair-value based method, for costs related to all share-based payments including stock options. ASC 718 requires companies to estimate the fair value of all share-based payment option awards on the date of grant using an option pricing model. The fair value of stock options is recognized over the period during which an optionee is required to provide services in exchange for the option award, known as the requisite service period (usually the vesting period), on a straight-line basis. For performance-based stock options, the Company will assess the probability of performance conditions being achieved in each reporting period. The amount of stock-based compensation expense recognized in any one period related to performance-based stock options can vary based on the achievement or anticipated achievement of the performance conditions.

The Company accounts for equity instruments issued to nonemployees in accordance with ASC 505-50 “Accounting for Equity Instruments that are Issued to Other than Employees for Acquiring, or in Conjunction with Selling Goods or Services.” Equity instruments issued to nonemployees are recorded at their fair value on the measurement date and are subject to periodic adjustments as the underlying equity instruments vest. The Company believe that the fair value of the equity instrument is more reliably measured than the fair value of the services received.

Income Taxes

The Company accounts for income taxes under the liability method, whereby deferred tax assets and liabilities are determined based on the difference between the consolidated financial statements and tax bases of assets and liabilities using the enacted tax rates in effect for the year in which the differences are expected to affect taxable income. A valuation allowance is established when necessary to reduce deferred tax assets to the amounts expected to be realized.

The Company also follows the provisions of ASC 740-10, “Accounting for Uncertainty in Income Taxes.” ASC 740-10 prescribes a comprehensive model for the recognition, measurement, presentation and disclosure in financial statements of any uncertain tax positions that have been taken or expected to be taken on a tax return. No liability related to uncertain tax positions is recorded on the consolidated financial statements. It is the Company's policy to include penalties and interest expense related to income taxes as part of the provision for income taxes.

Net Loss per Share Attributable to Common Stockholders

Basic net loss per share is computed by dividing the net loss attributable to common stockholders by the weighted average number of shares of common stock outstanding during the period, without consideration for potential dilutive common shares. Diluted net loss per share is computed by dividing the net loss attributable to common stockholders by the weighted average number of shares of common stock and potentially dilutive securities outstanding for the period. For purposes of the diluted net loss per share calculation, redeemable convertible preferred stock and warrants, and common stock options are considered to be potentially dilutive securities. Since the Company was in a loss position for all periods presented, basic net loss per share is the same as diluted net loss per share as the inclusion of all potential dilutive common shares would have been anti-dilutive.

The Company allocates no loss to participating securities because they have no contractual obligation to share in the losses of the Company. The shares of the Company's redeemable convertible preferred stock participate in any dividends declared by the Company and are therefore considered to be participating securities.

Net loss per share was determined as follows:

	Year Ended December 31, 2017
Net loss attributable to Silk Road Medical, Inc. common stockholders	$ (19,355,624)
Weighted average common stock outstanding used to compute net loss per share, basic and diluted	1,172,307
Net loss per share attributable to Silk Road Medical, Inc. common stockholders, basic and diluted	$ (16.51)

The following potentially dilutive securities outstanding have been excluded from the computation of diluted weighted average shares outstanding because such securities have an antidilutive impact due to the Company's net loss, in common stock equivalent shares:

	December 31, 2017
Redeemable convertible preferred stock outstanding	$ 57,329,696
Redeemable convertible preferred stock warrants outstanding	7,215,780
Common stock options	11,634,314
	$ 76,179,790

Comprehensive Loss

For the year ended December 31, 2017, there was no difference between comprehensive loss and the Company's net loss.

Segment and Geographical Information

The Company operates and manages its business as one reportable and operating segment. The Company's chief executive officer, who is the chief operating decision maker, reviews financial information on an aggregate basis for purposes of allocating resources and evaluating financial performance. All of the Company's long-lived assets are based in the United States. Long-lived assets are comprised of property and equipment. All of the Company's revenues were in the United States for the year ended December 31, 2017, based on the shipping location of the external customer.

3. Recent Accounting Pronouncements

In May 2014, the FASB issued Accounting Standards Update ("ASU") 2014-09, Revenue from Contracts with Customers, which supersedes the revenue recognition requirements in ASC 605, Revenue Recognition. This ASU is based on the principle that revenue is recognized to depict the transfer of goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The ASU also requires additional disclosures about

the nature, amount, timing and uncertainty of revenue and cash flows rising from customer contracts, including significant judgments, changes in judgments and assets recognized from costs incurred to obtain or fulfill a contract. This ASU will be effective for the Company for annual periods beginning in 2019 and for interim periods beginning in 2020. The ASU may be applied retrospectively to each prior period presented (full retrospective) or retrospectively with the cumulative effect recognized as of the date of initial application (modified retrospective).

The Company adopted the new revenue standard as of January 1, 2018, using the modified retrospective approach. The Company has determined that the new revenue standard will not have a material impact on its consolidated financial statements but will have an impact upon its financial statement disclosures.

In February 2016, the FASB issued ASU 2016-02, Leases (“ASC 842”), which sets out the principles for the recognition, measurement, presentation and disclosure of leases for both parties to a contract (i.e. lessees and lessors). The new standard requires lessees to apply a dual approach, classifying leases as either finance or operating leases based on the principle of whether or not the lease is effectively a financed purchase by the lessee. This classification will determine whether lease expense is recognized based on an effective interest method or on a straight-line basis over the term of the lease, respectively. A lessee is also required to record a right-of-use asset and a lease liability for all leases with a term of greater than 12 months regardless of their classification. Leases with a term of 12 months or less will be accounted for similar to existing guidance for operating leases today. ASC 842 supersedes the previous leases standard, ASC 840, Leases. For public entities, the standard is effective for interim and annual periods beginning after December 15, 2018 and should be applied through a modified retrospective transition approach for leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements, with early adoption permitted. Although the Company is currently evaluating the impact of this guidance on its consolidated financial statements, it does expect that most of its operating lease commitments will be subject to the new guidance and will be recognized as operating lease liabilities and right-of-use assets upon its adoption.

In March 2016 the FASB issued ASU 2016-09, Compensation - Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting. This update simplifies the accounting for employee share-based payment transactions, including the accounting for income taxes, forfeitures, and statutory tax withholding requirements, as well as classification in the statement of cash flows. ASU 2016-09 was effective for public entities for annual periods beginning after December 15, 2016. The Company's adoption of this new standard on January 1, 2017 did not have a material impact on its consolidated financial statements given the full valuation allowance on its deferred tax assets.

In June 2016, the FASB issued ASU 2016-13, Measurement of Credit Losses on Financial Statements. This update provides financial statement users with more decision-useful information about the expected credit losses on financial instruments and other commitments to extend credit held by a reporting entity at each reporting date. The update replaces the incurred loss impairment methodology in current GAAP with a methodology that reflects expected credit losses and requires consideration of a broader range of reasonable and supportable information to inform credit loss estimates. ASU No. 2016-13 is effective for public entities for annual periods beginning after December 15, 2019. The Company does not believe that the adoption of this new guidance will have a material impact on its consolidated financial statements.

In August 2016, the FASB issued ASU 2016-15, Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments (a consensus of the FASB Emerging Issues Task Force). The new guidance is intended to reduce diversity in practice in how certain transactions are classified in the statement of cash flows. This update addresses the following eight specific cash flow issues: debt prepayment or debt extinguishment costs; settlement of zero-coupon debt instruments or other debt instruments with coupon interest rates that are insignificant in relation to the effective interest rate of the borrowing; contingent consideration payments made after a business combination; proceeds from the settlement of insurance claims; proceeds from the settlement of corporate-owned life insurance policies

("COLIs") (including bank-owned life insurance policies ("BOLIs"); distributions received from equity method investees; beneficial "interests in securitization transactions; and separately identifiable cash flows and application of the predominance principle. ASU No. 2016-15 is effective for public entities for annual periods beginning after December 15, 2017, with early adoption permitted. ASU 2016-15 will require adoption on a retrospective basis. The Company is in the process of evaluating the impact of this new guidance on its consolidated financial statements and related disclosures.

In November 2016, the FASB issued ASU 2016-18, Statement of Cash Flows (Topic 230): Restricted Cash. The amendments in this update require that a statement of cash flows explain the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. Therefore, amounts generally described as restricted cash and restricted cash equivalents should be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. The amendments in this update are effective for public entities for annual periods beginning after December 15, 2017. ASU 2016-15 will require adoption on a retrospective basis. Early adoption is permitted. The Company is in the process of evaluating the impact of this new guidance on its consolidated financial statements and related disclosures.

In May 2017, FASB issued ASU 2017-09, Compensation - Stock Compensation (Topic 718): Scope of Modification Accounting. This update provides guidance about which changes to the terms or conditions of a share-based payment award require an entity to apply modification accounting. The amendments in this update are effective for all entities for annual periods, and interim periods within those annual periods, beginning after December 15, 2017. Early adoption is permitted, including adoption in any interim period. The Company is currently evaluating the impact the adoption of this standard will have on its consolidated financial statements and related disclosures.

In June 2018, the FASB issued ASU 2018-07, Compensation - Stock Compensation (Topic 718): Improvements to Nonemployee Share-Based Payment Accounting, which expands the scope of Topic 718 to include all share-based payment transactions for acquiring goods and services from nonemployees. ASU 2018-07 specifies that Topic 718 applies to all share-based payment transactions in which the grantor acquires goods and services to be used or consumed in its own operations by issuing share-based payment awards. ASU 2018-07 also clarifies that Topic 718 does not apply to share-based payments used to effectively provide (1) financing to the issuer or (2) awards granted in conjunction with selling goods or services to customers as part of a contract accounted for under ASC 606. The transition method provided by ASU 2018-07 is a modified retrospective basis which recognizes a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption. The amendments in ASU 2018-07 are effective for public entities for fiscal years beginning after December 15, 2018, including interim periods within that fiscal year. Early adoption is permitted, but no earlier than an entity's adoption date of Topic 606. The Company is currently evaluating the impact of adopting this guidance on its consolidated financial statements and related disclosures.

In August 2018, the FASB issued ASU 2018-13, Fair Value Measurement, which changed the disclosure requirements for fair value measurements by removing, adding and modifying certain disclosures. The standard is effective for all entities for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. Early adoption is permitted. The Company is evaluating the impact of adopting this guidance to its consolidated financial statements and related disclosures.

4. Fair Value Measurements

The Company measures certain financial assets and liabilities at fair value on a recurring basis. Fair value is an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based

measurement that should be determined based on assumptions that market participants would use in pricing an asset or a liability. A three-tier fair value hierarchy is established as a basis for considering such assumptions and for inputs used in the valuation methodologies in measuring fair value:

- Level 1 – quoted prices in active markets are identical assets and liabilities;
- Level 2 – observable inputs other than quotes prizes in active markets for identical assets and liabilities;
- Level 3 – unobservable inputs.

The Company's cash equivalents are classified within Level 1 of the fair value hierarchy because they are valued using quoted market prices, broker or dealer quotations, or alternative pricing sources with reasonable levels of price transparency.

Based on Level 2 inputs and the borrowing rates available to the Company for loans with similar terms and maturities at December 31, 2017, the fair value of the Company's long-term debt was approximately $28,500,000.

In October and December 2015, the Company issued warrants to purchase 3,767,775 and 14,380 shares, respectively, of Series C redeemable convertible preferred stock at the exercise price of $2.26 per share. The Company recorded an initial warrant liability of $4,879,124. The redeemable convertible warrant liability was initially valued using the Black Scholes option-pricing valuation method with the following assumptions: an expected term of 8 years, a volatility of 52%, and a risk-free interest rate of 1.94% for the warrants issued in October, and an expected term of 8 years, a volatility of 52%, and a risk-free interest rate of 2.24% for the warrants issued in December. In April 2016, the Company issued additional warrants to purchase 115,043 shares of Series C redeemable convertible preferred stock at the exercise price of $2.26 per share. The Company recorded a warrant liability of $143,804. The redeemable convertible warrant liability was initially valued using the Black Scholes option-pricing valuation method with the following assumptions: an expected term of 7.5 years, a volatility of 50%, and a risk-free interest rate of 1.64%.

As a derivative liability, the redeemable convertible warrants were initially recorded at fair value and are subject to remeasurement at each balance sheet date. Any change in fair value as a result of a remeasurement is recognized as a component of other income (expense), net in the consolidated statements of operations and comprehensive loss. The Company's redeemable convertible warrant liability is classified within Level 3 of the fair value hierarchy.

The fair value of the redeemable convertible warrant liability at December 31, 2017 was determined by using an option pricing model to allocate the total enterprise value to the various securities within the Company's capital structure. The model's inputs reflect assumptions that market participants would use in pricing the instrument in a current period transaction and included:

	Year Ended December 31, 2017
Time to liquidity (years)	1.75
Expected volatility	50.0%
Discounted cash flow rate	18.0%
Risk-free interest rate	1.9%
Marketability discount rate	27%

The following table sets forth the fair value of the Company's financial liabilities measured on a recurring basis, as of December 31, 2017.

	December 31, 2017			
	Level 1	Level 2	Level 3	Total
Liabilities				
Redeemable convertible warrant liability	$ —	$ —	$ 4,185,152	$ 4,185,152

The changes in the redeemable convertible warrant liability are summarized below:

Fair value at December 31, 2016	$ 7,143,104
Change in fair value recorded in other income (expense), net	(2,957,952)
Fair value at December 31, 2017	$ 4,185,152

There were no transfers between fair value hierarchy levels during the year ended December 31, 2017.

5. Balance Sheet Components

Inventories

	December 31, 2017
Raw materials	$ 506,152
Finished products	2,741,957
	$ 3,248,109

As of December 31, 2017, there were no work-in-process inventories.

Property and Equipment, Net

	December 31, 2017
Furniture and fixtures	$ 76,381
Equipment	1,058,297
Software	405,433
Leasehold improvements	188,550
	1,728,661
Less: Accumulated depreciation and amortization	(1,302,816)
Add: Construction-in-progress	60,294
	$ 486,139

Depreciation and amortization expense was $128,719 for the year ended December 31, 2017.

Accrued Liabilities

	December 31, 2017
Accrued payroll and related expenses	$ 2,717,793
Accrued clinical expenses	183,839
Accrued other expenses	207,742
	$ 3,109,374

6. Long-term Debt

In October 2015, the Company entered into a term loan agreement with CRG. The term loan agreement provides for up to $30,000,000 in term loans split into two tranches as follows: (i) the Tranche A Loans provided for $20,000,000 in term loans, and (ii) the Tranche B Loans provided for up to $10,000,000 in term loans. The Company drew down the Tranche A Loans on October 13, 2015. The Tranche B Loans were available to be drawn prior to March 29, 2017. In January 2017, the term loan agreement was amended to extend the commitment period of the Tranche B Loans to April 28, 2017. In April 2017, the Company drew down $5,000,000 of the available Tranche B Loans.

The Tranche A and Tranche B Loans bear interest at a fixed rate equal to 13.0% per annum that is due and payable quarterly in arrears. During the first full 16 quarters, payments are interest only. At the election by the Company, during the first 16 calendar quarters, 4.5% of the interest due and payable may be “paid in kind” and added to the then outstanding principal and 8.5% of the interest due and payable paid in cash. To date, the Company has elected the “paid in kind” interest option to the extent available and has made a cash payment for the remaining amount. Principal is repayable in eight equal quarterly installments during the final two years of the term. All unpaid principal, and accrued and unpaid interest, is due and payable in full in September 2021.

The Company may voluntarily prepay the borrowings in full, with a prepayment premium beginning at 8.0% and declining to 4.0% after the fourth payment date, to 2.0% after the eighth payment date, with no premium being payable if prepayment occurs after the third year of the loan. The Tranche A borrowing required at the payment, on the borrowing date, of a financing fee equal to 1.75% of the borrowed loan principal, which is recorded as a discount to the debt. In addition, a facility fee equal to 5.0% of the amounts borrowed plus any “paid in kind” is payable at the end of the term or when the borrowings are repaid in full. A long-term liability is being accreted using the effective interest method for the facility fee over the term of the loan agreement. The borrowings are collateralized by a security interest in substantially all of the Company’s assets.

The Company is subject to financial covenants related to liquidity and minimum trailing revenue targets that begin in December 31, 2016 and are tested on an annual basis. The liquidity covenant requires the Company to maintain an amount which shall exceed the greater of (i) $3,000,000 and (ii) the minimum cash balance, if any, required of the Company by a creditor to the extent the Company has incurred permitted priority debt. The Company had to achieve minimum net revenue of $1,000,000 in 2016, and must achieve minimum net revenue of $5,000,000 in 2017, $15,000,000 in 2018, $30,000,000 in 2019 and $40,000,000 in 2020. The liquidity financial covenant has a 90-day equity cure period following end of the calendar year to issue additional shares of equity interests in exchange for cash, or to borrow permitted cure debt. In addition, the term loan agreement prohibits the payment of cash dividends on the Company’s capital stock and also places restrictions on mergers, sales of assets, investments, incurrence of liens, incurrence of indebtedness and transactions with affiliates. CRG may accelerate the payment terms of the term loan agreement upon the occurrence of certain events of default set forth therein, which include the failure of the Company to make timely payments of amounts due under the term loan

agreement, the failure of the Company to adhere to the covenants set forth in the Loan Agreement, the insolvency of the Company or upon the occurrence of a material adverse change. The Company was out of compliance with the covenant to provide CRG annual audited financial statements. The Company and CRG have amended the agreement to waive this covenant violation. As of December 31, 2017, the Company was in compliance with all applicable financial covenants. As of December 31, 2017, management does not believe that it is

probable that the clauses will be triggered within the next twelve months, and therefore, the debt is classified as long-term on the consolidated balance sheet.

The issuance costs and debt discount have been netted against the borrowed funds on the consolidated balance sheet. The long-term debt balance as of December 31, 2017 was $27,589,038.

Future maturities under the term loan agreement as of December 31, 2017 are as follows:

Year Ending December 31:	Amount
2018	$ 2,391,052
2019	6,532,240
2020	17,442,842
2021	11,797,034
	38,163,168
Add: Accretion of closing fees	567,652
	38,730,820
Less: Amount representing interest	(10,888,687)
Less: Amount representing debt discount and debt issuance costs	(253,095)
Present value of minimum payments	$ 27,589,038

In October 2015, CRG purchased 884,954 shares of the Company's Series C redeemable convertible preferred stock at $2.26 per share. In addition, CRG received warrants to purchase 442,477 shares of the Company's Series C redeemable convertible preferred stock. The warrants are immediately exercisable, at an exercise price per share of $2.26, and expire the earlier of October 2023 or upon the consummation of a change of control or initial public offering of the Company.

In July 2017, CRG purchased 442,477 shares of the Company's Series C convertible preferred stock at $2.26 per share.

7. Commitments and Contingencies

Operating Leases

The Company's operating lease obligations primarily consist of leased office, laboratory, and manufacturing space under non-cancellable operating leases that expire in January 2019 and in October 2024. In November 2017, the Company entered into a six-year operating lease for new office space in Sunnyvale, the lease commenced in June 2018 and expires in October 2024. The lease agreement includes a renewal provision allowing the Company to extend this lease for an additional period of five years. In addition to the minimum future lease commitments presented below, the lease requires the Company to pay property taxes, insurance, maintenance, and repair costs. The lease includes a rent holiday concession and escalation clauses for increased rent over the lease term. Rent expense is recognized using the straight-line method over the term of the lease. The Company records deferred rent calculated as the difference between rent expense and the cash rental payments. In connection with the facility lease, the landlord will provide incentives of $794,000 to the Company in the form of leasehold improvements. In addition, at the Company's election, the landlord will also provide for leasehold improvements financing of up to $316,000. If elected, the financing amount will be added to the Company's minimum lease commitments as of the lease commencement date at an interest rate of 7.0% per annum (Note 15). These amounts will be reflected as deferred rent and amortized as a reduction to rent expense over the original term of the Company's operating lease.

The aggregate future minimum lease payments are as follows:

Year Ending December 31:	Total Minimum Lease Payments
2018	$ 635,272
2019	975,200
2020	974,520
2021	1,003,755
2022 and thereafter	2,953,823
	$ 6,542,570

Purchase Obligations

Purchase obligations consist of agreements to purchase goods and services entered into in the ordinary course of business. The Company had non-cancellable commitments for inventory that were payable within one year to suppliers for purchases totaling $9,034,000 as of December 31, 2017.

Indemnification

In the normal course of business, the Company enters into contracts and agreements that contain a variety of representations and warranties and may provide for indemnification of the counterparty. The Company's exposure under these agreements is unknown because it involves claims that may be made

against it in the future but have not yet been made. To date, the Company has not been subject to any claims or been required to defend any action related to its indemnification obligations.

The Company indemnifies each of its directors and officers for certain events or occurrences, subject to certain limits, while the director is or was serving at the Company's request in such capacity, as permitted under Delaware law and in accordance with its certificate of incorporation and bylaws. The term of the indemnification period lasts as long as a director may be subject to any proceeding arising out of acts or omissions of such director in such capacity. The maximum amount of potential future indemnification is unlimited; however, the Company currently holds director liability insurance. This insurance allows the transfer of risk associated with the Company's exposure and may enable it to recover a portion of any future amounts paid. The Company believes that the fair value of these indemnification obligations is minimal. Accordingly, the Company has not recognized any liabilities relating to these obligations as of December 31, 2017.

Legal Proceedings

The Company is not involved in any pending legal proceedings that it believes could have a material adverse effect on its financial condition, results of operations or cash flows. From time to time, the Company may pursue litigation to assert its legal right and such litigation may be costly and divert the efforts and attention of its management and technical personnel which could adversely affect its business.

8. Redeemable Convertible Preferred Stock

The Company has the following redeemable convertible preferred stock issued and outstanding at December 31, 2017:

	December 31, 2017				
	Shares Authorized	Shares Issued and Outstanding	Per share Preference	Preferential Liquidation Value	Carrying Value
Series					
Series A	4,400,000	4,400,000	$ 1.00	$ 4,400,000	$ 4,369,178
Series A-1	3,000,000	3,000,000	$ 1.25	3,750,000	3,722,682
Series B	16,914,069	16,914,069	$ 2.26	38,225,796	38,014,567
Series C	40,673,895	33,015,627	$ 2.26	74,615,317	59,128,721
	64,987,964	57,329,696		$ 120,991,113	$ 105,235,148

As of December 31, 2017, the holders of redeemable convertible preferred stock ("convertible preferred stock") have various rights and preferences as follows:

Voting Rights

The holders of Series A, Series A-1, Series B and Series C convertible preferred stock are entitled to vote on all matters on which the common stockholders are entitled to vote. Holders of Series A, Series A-1, Series B and Series C convertible preferred and common stock vote together as a single class. Each holder of Series A, Series A-1, Series B and Series C convertible preferred stock is entitled to the number of votes equal to the number of common stock shares into which the shares held by such holder are convertible.

Election of Directors

The holders of record of Series A and Series B preferred stock, exclusively and as a separate class, are entitled to each elect two and three directors of the Company, and the holders of record of Series C preferred stock, exclusively and as a separate class, are entitled to elect two directors of the Company.

Dividends

The holders of Series A, Series A-1, Series B and Series C convertible preferred stock are entitled, on a pari passu basis, when and if declared by the Board of Directors of the Company, to non-cumulative dividends out of the Company's assets legally available therefore at the rate of $0.08, $0.10, $0.18 and $0.18 per share per annum, respectively. No distributions will be made with respect to the common stock until all declared but unpaid dividends on convertible preferred stock have been paid or set aside for payment to the convertible preferred stock holders. The right to receive dividends on shares of convertible preferred stock will be non-cumulative, and no right to such dividends will accrue to holders of convertible preferred stock by reason of the fact that dividends on such shares are not declared or paid in any years. As of December 31, 2017, no dividends have been declared to date.

Liquidation

In the event of any liquidation, dissolution or winding up of the Company, either voluntary or involuntary, the holders of Series C preferred stock will be entitled to receive out of net available funds and assets of

the corporation available for distribution to its stockholders, before any payment shall be made to the holders of Series B preferred stock and Series A preferred stock and Series A-1 junior stock. After the payment of all preferential amounts required to be paid to the holders of Series C preferred stock, the holders of Series B, Series A and Series A-1 outstanding shares of convertible preferred stock will be entitled to receive out of net available funds and assets, before and in preference to any distribution of any of the Company's net available funds and assets to the holders of common stock by reason of their ownership of such common stock.

An amount per share equal to $2.26, $2.26, $1.25 and $1.00 for each share of Series C, Series B, Series A-1 and Series A, respectively, convertible preferred stock then so held equal to the applicable liquidation preference. The remaining assets, if any, shall be distributed to the holders of common stock. Should the Company's legally available assets be insufficient to satisfy the liquidation preferences after the payment of all preferential amounts required to be paid to the holders of Series C preferred stock, the funds will be distributed ratably among the holders of Series A, Series A-1, and Series B convertible preferred stock in proportion to the preferential amount each holder is otherwise entitled to receive.

Conversion

Shares of convertible preferred stock are convertible into shares of common stock at the holders' option at any time or automatically (i) immediately prior to the closing of a firmly underwritten public offering in which the offering price per share is not less than $6.78 and the aggregate gross proceeds received by the Company are not less than $50,000,000 or (ii) upon receipt by the Company of a written request for such conversion from the holders of the majority of the convertible preferred stock then outstanding, voting as a single class and on an as-converted basis. Each share of Series A, Series A-1, Series B and Series C convertible preferred stock is convertible, at the option of the holder, into the number of shares of common stock into which such shares are convertible at the then effective conversion ratio. The initial conversion price per share for Series A, Series A-1, Series B and Series C convertible preferred stock is $1.00, $1.25, $2.26 and $2.26 per share, respectively. The initial conversion price is subject to adjustment from time to time. As of December 31, 2017 the conversion ratio for each series of convertible preferred stock was one-for-one.

Redemption

The redeemable convertible preferred stock is recorded in mezzanine equity because while it is not mandatorily redeemable, it will become redeemable at the option of the stockholders upon the occurrence of certain deemed liquidation events that are considered not solely within the Company's control.

Preferred Stock Warrants

In connection with the issuance of the Company's Series C redeemable convertible preferred stock issuances between August 2014 through April 2016, the Company issued, to each investor who purchased shares of Series C redeemable convertible preferred stock, warrants to purchase up to the number of shares of preferred stock equal to 50% of the number of shares of the Company's Series C redeemable convertible preferred stock purchased.

The warrants are immediately exercisable, at an exercise price per share of $2.26 and expire eight years from their date of issuance. The warrants will be automatically net exercised upon the consummation or effective date of a change of control or initial public offering of the Company.

As of December 31, 2017, warrants to purchase an aggregate of 7,215,780 shares of Series C redeemable convertible preferred stock were outstanding.

9. Common Stock

At December 31, 2017, the Company's certificate of incorporation, as amended and restated, authorizes the Company to issue up to 80,673,895 shares of common stock with $0.001 par value per share, of which 1,790,926 shares were issued and outstanding. The holders of common stock are also entitled to receive dividends whenever funds are legally available, when and if declared by the Board of Directors. As of December 31, 2017, no dividends have been declared to date. Each share of common stock is entitled to one vote.

At December 31, 2017, the Company had reserved common stock for future issuances as follows:

	December 31, 2017
Conversion of Series A convertible preferred stock	4,400,000
Conversion of Series A-1 convertible preferred stock	3,000,000
Conversion of Series B convertible preferred stock	16,914,069
Conversion of Series C convertible preferred stock and warrants	40,673,895
Exercise of options under stock plan	11,634,314
Issuance of options under stock plan	885,997
	77,508,275

10. Stock Option Plan

In 2007, the Company established its 2007 Stock Option Plan (the "Plan") which provides for the granting of stock options to employees, directors and consultants of the Company. Options granted under the Plan may be either incentive stock options ("ISOs") or nonqualified stock options ("NSOs"). ISOs may be granted only to Company employees (including officers and directors who are also employees). NSOs may be granted to Company employees, directors and consultants. As of December 31, 2017, the Company has reserved 14,218,237 shares of common stock for issuance under the Plan.

The exercise price of ISOs and NSOs shall not be less than 100% and 85% of the estimated fair value of the shares on the date of grant, respectively, as determined by the Board of Directors. The exercise price of ISOs and NSOs granted to a 10% stockholder shall not be less than 110% of the estimated fair value of the shares on the date of grant as determined by the Board of Directors. To date, options have a term of ten years and generally vest over 4 years with 25% vesting on the first anniversary of the issuance date, and then monthly vesting for an additional three years from date of grant.

Activity under the Company's Plan is set forth below:

		Options Outstanding			
	Shares Available for Grant	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (in Years)	Aggregate Intrinsic Value
Balances, December 31, 2016	74,204	9,391,814	$ 0.54	7.71	$ 443,959
Authorized	3,839,043				
Options granted	(3,713,501)	3,713,501	$ 2.42		
Options exercised	—	(784,750)	$ 0.43		
Options cancelled	686,251	(686,251)	$ 0.57		
Balances, December 31, 2017	885,997	11,634,314	$ 1.14	7.81	$ 5,072,571
Vested and exercisable at December 31, 2017		5,890,759	$ 0.62	7.06	$ 3,614,788
Vested and expected to vest at December 31, 2017		11,117,394	$ 1.12	7.75	$ 4,941,371

The following table summarizes information about stock options outstanding at December 31, 2017:

	Options Outstanding and Vested as of December 31, 2017				
	Options Outstanding			Options Vested	
Exercise Price	Options Outstanding	Weighted Average Remaining Contractual Term (in Years)	Weighted Average Exercise Price	Number Exercisable	Weighted Average Exercise Price
$0.10	88,000	0.30	$ 0.10	88,000	$ 0.10
$0.25	288,000	2.54	$ 0.25	288,000	$ 0.25
$0.50	388,282	3.91	$ 0.50	388,282	$ 0.50
$0.51	1,246,264	4.95	$ 0.51	1,246,264	$ 0.51
$0.54	1,364,045	7.24	$ 0.54	1,002,616	$ 0.54
$0.58	295,083	9.20	$ 0.58	21,937	$ 0.58
$0.59	4,478,139	7.88	$ 0.59	2,635,162	$ 0.59
$1.17	1,174,000	9.90	$ 1.17	54,209	$ 1.17
$1.75	901,751	9.92	$ 1.75	59,542	$ 1.75
$2.26	200,000	9.92	$ 2.26	16,667	$ 2.26
$4.50	1,210,750	9.92	$ 4.50	90,080	$ 4.50
	11,634,314	7.81	$ 1.14	5,890,759	$ 0.62

Stock-Based Compensation Associated with Awards to Employees

During the year ended December 31, 2017, the Company granted stock options to employees to purchase 3,703,501 shares of common stock, with a weighted-average grant date fair value of $0.31 per

share. The total fair value of options vested during the year ended December 31, 2017 was $422,585. The aggregate intrinsic value of options exercised was $142,654 during the year ended December 31, 2017. The aggregate intrinsic value was calculated as the difference between the exercise prices of the underlying options and the estimated fair value of the common stock on the date of exercise. Stock-based compensation expense recognized during the year ended December 31, 2017 includes compensation expense for stock–based awards granted to employees based on the grant date fair value of $441,621. As of December 31, 2017, there was total unrecognized compensation costs of $1,605,426 related to these stock options. These costs are expected to be recognized over a period of approximately 2.92 years.

The Company estimated the fair value of stock options using the Black–Scholes option pricing model. The fair value of employee stock options is being amortized on a straight–line basis over the requisite service period of the awards. The fair value of employee stock options was estimated using the following weighted-average assumptions for the year ended December 31, 2017:

	Year Ended December 31, 2017
Expected term (in years)	1.00 - 6.25
Expected volatility	39% - 41%
Risk-free interest rate	1.03% - 2.25%
Dividend yield	—%

The fair value of common stock was determined by the Company’s Board of Directors, who considered, among other things, contemporaneous valuations of the Company's common stock prepared by an unrelated third-party valuation firm in accordance with the guidance provided by the American Institute of Certified Public Accountants Practice Guide, Valuation of Privately-Held-Company Equity Securities Issued as Compensation. The expected term of stock options represents the weighted-average period the stock options are expected to remain outstanding. The Company does not have sufficient historical exercise and post-vesting termination activity to provide accurate data for estimating the expected term of options and has opted to use the "simplified method," whereby the expected term equals the arithmetic average of the vesting term and the original contractual term of the option. The expected stock price volatility assumption was determined by examining the historical volatilities for industry peers, as the Company did not have any trading history for the Company’s common stock. The Company will continue to analyze the historical stock price volatility and expected term assumption as more historical data for the Company’s common stock becomes available. The risk-free interest rate assumption is based on the U.S. Treasury instruments whose term was consistent with the expected term of the Company’s stock options. The expected dividend assumption is based on the Company’s history and expectation of dividend payouts.

In addition, forfeitures are estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. Forfeitures were estimated based on management’s expectation using historical forfeiture patterns.

Stock-Based Compensation Associated with Awards to Nonemployees

During the year ended December 31, 2017, the Company granted options to purchase 10,000 shares of common stock to consultants in exchange for services. Stock–based compensation expense related to stock options granted to nonemployees is recognized as the stock options are earned.

The fair value of the stock options granted to nonemployees is calculated at each reporting date using the Black-Scholes options pricing model using the following assumptions:

	Year Ended December 31, 2017
Contractual term (in years)	3.75 - 9.75
Expected volatility	39% - 56%
Risk-free interest rate	2.06% - 2.39%
Dividend yield	0%

The amount of stock-based compensation expense will fluctuate as the estimated fair value of the common stock fluctuates. In connection with the grant of stock options to nonemployees, the Company recorded stock–based compensation charges of $93,561 for the year ended December 31, 2017.

Total stock-based compensation expense relating to the Company's stock options to employees and nonemployees during the year ended December 31, 2017, is as follows:

	Year Ended December 31, 2017
Cost of goods sold	$ 49,443
Research and development expenses	97,924
Selling, general and administrative expenses	387,815
	$ 535,182

11. Income Taxes

The Company uses the liability method of accounting for income taxes. Under this method, deferred tax assets and liabilities are determined based on the differences between the financial reporting and the tax bases of assets and liabilities and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. The Company must then assess the likelihood that the resulting deferred tax assets will be realized. A valuation allowance is provided when it is more likely than not that some portion or all of a deferred tax asset will not be realized. Due to the Company's lack of earnings history, the net deferred tax assets have been fully offset by a valuation allowance.

The Company recognizes benefits of uncertain tax positions if it is more likely than not that such positions will be sustained upon examination based solely on their technical merits, as the largest amount of benefit that is more likely than not to be realized upon the ultimate settlement. The Company's policy is to recognize interest and penalties related to the underpayment of income taxes as a component of income tax expense or benefit. To date, there have been no interest or penalties charged in relation to the unrecognized tax benefits.

The components of income before taxes are as follows:

	Year Ended December 31, 2017
United States	$ (22,357,837)
International	—
	$ (22,357,837)

A reconciliation of the statutory U.S. federal rate to the Company's effective tax rate is as follows:

	Year Ended December 31, 2017
Tax at federal statutory rate	$ (7,601,664)
State taxes, net of federal benefit	(1,155,191)
Permanent differences	535,244
Tax Cut and Jobs Act	12,455,963
Change in valuation allowance	(3,832,137)
General business credits	(465,266)
Other	69,227
Provision for taxes	$ 6,176

Significant components of the Company's net deferred tax assets as of December 31, 2017 consist of the following:

	December 31, 2017
Deferred tax assets:	
Net operating loss carryforwards	$ 28,055,734
Research and development credits	5,080,969
Capitalized start-up costs/Intangibles	19,354
Accruals and reserves	704,994
Property and equipment	44,468
Stock-based compensation	197,443
Total deferred tax assets	34,102,962
Less: Valuation allowance	(34,102,962)
Net deferred tax assets	$ —

In assessing the realizability of deferred tax assets, management considers whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in

which those temporary differences become deductible. Management believes it is more likely than not that the deferred tax assets will not be realized; accordingly, a valuation allowance has been established on U.S. net deferred tax assets. The valuation allowance decreased $3,832,137 during 2017.

As of December 31, 2017, the Company had net operating loss carryforwards of approximately $102,929,875 and $96,871,322 for federal and state income tax purposes, respectively. The federal and state net operating loss carryforwards begin to expire in 2027 and 2028, respectively.

The federal and state net operating loss carryforwards may be subject to significant limitations under Section 382 and Section 383 of the Internal Revenue Code and similar provisions under state law. The Tax Reform Act contains provisions that limit the federal net operating loss carryforwards that may be used in any given year in the event of special occurrences, including significant ownership changes. A Section 382 "ownership change" generally occurs if one or more stockholders or groups of stockholders, who own at least 5% of the Company's stock, increase their ownership by more than 50 percentage points over their lowest ownership percentage within a rolling three-year period. The Company may have previously experienced, and may in the future experience, one or more Section 382 "ownership changes," including in connection with the Company's initial public offering. If so, the Company may lose some or all of the tax benefits of its NOLs and tax credits. The extent of such limitations for prior years, if any, has not yet been determined.

At December 31, 2017, the Company had $3,746,904 and $2,403,311 of federal research and development tax credits and state tax credits. The state tax credits are made up of California Research and Development Credits and California New Jobs Credits. If not utilized, the Federal credits will expire beginning in 2027. The California Research and Development credits can be carried forward indefinitely, while the California New Jobs Credits begin to expire in 2019.

As of December 31, 2017, the Company had $615,022 of unrecognized tax benefits. The Company does not have any tax positions for which it is reasonably possible that the total amount of gross unrecognized would increase or decrease within twelve months of the year ended December 31, 2017. If recognized, $0 would affect the effective tax rate.

The Company recognizes interest and penalties related to uncertain tax positions in income tax expense. There was no such expense recorded during 2017.

A reconciliation of the unrecognized tax benefits from January 1, 2017 to December 31, 2017 is as follows:

	December 31, 2017
Balance, January 1, 2017	$ 551,302
Increases related to current years' tax positions	63,720
Increases/(decreases) related to prior years' tax positions	—
Balance, December 31, 2017	$ 615,022

The Company currently has no federal or state tax examinations in progress nor has it had any federal or state tax examinations since its inception. As a result of the Company's net operating loss carryforwards, all of its tax years are subject to federal and state tax examination.

On December 22, 2017, the United States enacted a law commonly known as the Tax Cuts and Jobs Act (“TCJA” or “Act”) which makes widespread changes to the Internal Revenue Code, including a reduction

in the federal corporate tax rate to 21%, effective January 1, 2018. The Company is subject to the provisions of FASB ASC 740-10, which requires that the effect on deferred tax assets and liabilities of a change in tax rates be recognized in the period the tax rate change was enacted. Consequently, the reduction in the U.S. corporate income tax rate as a result of the TCJA impacts the carrying value of deferred tax assets.

In December 2017, the SEC staff issued Staff Accounting Bulletin No. 118 (“SAB 118”), which provides guidance for the tax effect of the TCJA. SAB 118 provides a measurement period that should not extend beyond one year from the TCJA enactment date for companies to complete the accounting under ASC 740. In accordance with SAB 118, the Company must reflect the income tax effects of those aspects of the TCJA for which the accounting under ASC 740 is complete. To the extent that its accounting for certain income tax effects of the Act is incomplete, but the Company is able to determine a reasonable estimate, the Company must record a provisional estimate in its consolidated financial statements. If the Company cannot determine a provisional estimate to be included in its consolidated financial statements, the Company should continue to apply ASC 740 on the basis of the provisions of the tax laws that were in effect immediately before the enactment of the Act.

The Company’s accounting for the following elements of the Act is complete: Reduction of U.S. federal Corporate Tax Rate: The Act reduces the corporate tax rate to 21%, effective January 1, 2018. Accordingly, the Company has re-measured all deferred taxes at 21% as of December 31, 2017 and recorded a decrease related to the net deferred tax asset balance of $12,455,963 with a corresponding net adjustment to the Company's valuation allowance. The Company expects that the U.S. Treasury will issue regulations and other guidance on the application of certain provisions of the Act. The Company will analyze that guidance and other necessary information to refine its estimates and complete its accounting for the tax effects of the 2017 Tax Act, as necessary.

12. Variable Interest Entity - NeuroCo

In December 2014, the Board of Directors of the Company approved the sale of certain intellectual property of Silk Road Medical, Inc., to a newly incorporated entity, NeuroCo, Inc. In consideration for the intellectual property, a promissory note was executed between the two parties for the principal sum of $498,000 with an interest rate of 2.74% per annum, payable on the earlier of 10 years from the date of promissory note, or upon the occurrence of an event of default. The intellectual property transfer was recorded at its carrying value of zero as of December 31, 2014. During 2015 NeuroCo issued $154,458 in common stock to stockholders of the Company. During 2017, NeuroCo issued $576 in common stock upon the exercise of stock options. These common stock issuance amounts, as they are related to non-controlling investors, were reported as non-controlling interests in subsidiary in the Company’s consolidated financial statements and are offset by NeuroCo losses consolidated by the Company.

Additionally, NeuroCo incurred Research and Development related expenses paid for by the Company which were added in to the original promissory note. As of December 31, 2017, the promissory note amount was $1,544,151.

The Company has identified NeuroCo as a VIE of which the Company is the primary beneficiary. Pursuant to the accounting guidance for consolidating VIEs the main consideration was given to the fact that the amount of total equity investment at risk is not sufficient to permit NeuroCo to finance its activities without additional subordinated financial support. Additionally, NeuroCo and Silk Road Medical have the same Board of Directors and senior management composition, determining the Company to have the power to direct the activities that most significantly impact NeuroCo’s economic performance and the obligation to absorb losses and the right to receive benefits. Accordingly, the financial results of NeuroCo are included in the Company’s consolidated financial statements.

14. 401(k) Plan

The Company has a qualified retirement plan under section 401(k) of the Internal Revenue Code (“IRC”) under which participants may contribute up to 90% of their eligible compensation, subject to maximum deferral limits specified by the IRC. The Company may make a discretionary matching contribution to the 401(k) plan and may make a discretionary employer contribution to each eligible employee each year. To date, the Company has made no contributions to the 401(k) plan.

15. Subsequent Events

The Company evaluated subsequent events through December 19, 2018, which is the date these audited consolidated financial statements were available for issuance.

Long-term Debt

In September 2018, the Company entered into Amendment No. 5 to the term loan agreement with CRG. Under the amended terms of the amended loan agreement the maturity date was extended to December 31, 2022 and the repayment schedule of the existing term loans were changed to interest only so that the outstanding principal amount of the term loans will be payable in a single installment at maturity. The related fixed interest rate was changed to equal 10.75% per annum, due and payable quarterly in arrears. At the election of the Company, 2.75% of the interest due and payable may be “paid in kind” and added to the then outstanding principal and 8.0% of the interest due and payable paid in cash. All unpaid principal, and accrued and unpaid interest, is due and payable in full on December 31, 2022. The amended term loan agreement also provided for additional term loans in an aggregate principal amount of up to $25,000,000 and allow for the conversion, at the Company’s option, of up to 25% of the outstanding loans under the term loan agreement in connection with an initial public offering of the Company’s common stock which results in market capitalization of at least $250,000,000.

In September 2018, the Company drew down an additional $15,000,000 under the term loan agreement with CRG.

Operating Leases

In August 2018, in connection with the new facility lease, the Company elected to fully utilize the leasehold improvements financing option of $316,000. The amount financed was added to the Company’s minimum lease commitments as of the commencement date and includes interest at a rate of 7.0% per annum.

Acquisition of NeuroCo

On December 17, 2018, the Company and NeuroCo entered into the Agreement and Plan of Merger (the “Merger Agreement”) pursuant to which the Company acquired all assets and assumed all liabilities of NeuroCo (the “Merger”). The Merger closed on the same day (the “Closing”) and was consummated through a stock-for-stock transaction based on the relative values of the Company’s and NeuroCo’s equity. In consideration for 100% equity interest of NeuroCo the Company issued 90,085 shares of its common stock and the promissory note (see Note 12) in the amount of approximately $1,600,000 as of the Closing was settled and canceled. The Company also assumed NeuroCo’s 2015 Equity Incentive Plan, or the NeuroCo Plan. As of the merger closing, the outstanding options to purchase common stock of NeuroCo under the NeuroCo Plan converted to options to purchase 3,899 shares of the Company's common stock, and all outstanding warrants to purchase common stock of NeuroCo converted to warrants to purchase 20,255 shares of the Company's common stock. As a result of the Merger, NeuroCo merged into the Company with the Company being the surviving corporation.

As the Company already controlled and consolidated NeuroCo (see Note 12) and retained the control over NeuroCo's business after the Merger, the Company accounted for the acquisition of equity interest in NeuroCo as an equity transaction. Therefore, the Company did not recognize a gain or loss in its consolidated net loss or comprehensive loss for acquisition of NeuroCo. As the carrying amount of the non-controlling interest as of the Closing was zero, the Company recorded the consideration paid as a decrease to the Company's additional paid-in capital within stockholder's deficit.

Shares

Common Stock

Prospectus

J.P. Morgan **BofA Merrill Lynch**

BMO Capital Markets **Stifel**

, 2019

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution

The following table sets forth all expenses to be paid by us, other than underwriting discounts and commissions, and proceeds before expenses to us and the selling stockholders in connection with this offering. All amounts shown are estimates except for the SEC registration fee, the FINRA filing fee and The NASDAQ Stock Market listing fee.

	Amount to be Paid
SEC registration fee	$ *
FINRA filing fee	*
The NASDAQ Stock Market listing fee	*
Printing and engraving	*
Legal fees and expenses	*
Accounting fees and expenses	*
Transfer agent and registrar fees	*
Miscellaneous	*
Total	$ *

* To be provided by amendment.

Item 14. Indemnification of Officers and Directors

Section 145 of the Delaware General Corporation Law, or DGCL, provides, in effect, that any person made a party to any action by reason of the fact that he is or was a director, officer, employee or agent of ours may, and in certain cases must, be indemnified by us against, in the case of a non-derivative action, judgments, fines, amounts paid in settlement, and reasonable expenses (including attorneys' fees) incurred by him as a result of such action, and in the case of a derivative action, against expenses (including attorneys' fees), if in either type of action he acted in good faith and in a manner he reasonably believed to be in or not opposed to our best interests. This indemnification does not apply, (i) in a derivative action, to matters as to which it is adjudged that the director, officer, employee or agent is liable to us, unless upon court order it is determined that, despite such adjudication of liability, but in view of all the circumstances of the case, he is fairly and reasonably entitled to indemnity for expenses, and, (ii) in a non-derivative action, to any criminal proceeding in which such person had no reasonable cause to believe his conduct was unlawful.

Article X of our current amended and restated certificate of incorporation and Article VIII of the amended and restated certificate of incorporation that our board of directors expects to approve and we expect our stockholders to approve in connection with this offering will provide for the indemnification of directors to the fullest extent permissible under Delaware law.

Article V of our current bylaws and Article VIII of the amended and restated bylaws that our board of directors expects to approve and we expect our stockholders to approve in connection with this offering will provide for the indemnification of officers, directors and third parties to the fullest extent permissible under Delaware law.

We have entered into indemnification agreements with certain of our directors, executive officers and others, in addition to indemnification provided for in our bylaws. Prior to the completion of this offering, we expect to enter into new indemnification agreements with each of our directors, executive officers and certain other officers, which will contain similar provisions.

The Underwriting Agreement (Exhibit 1.1 hereto) provides for indemnification by the underwriters of us and our executive officers and directors, and by us of the underwriters for certain liabilities, including liabilities arising under the Securities Act.

We have purchased and intend to maintain insurance on behalf of any person who is or was a director or officer against any loss arising from any claim asserted against him or her and incurred by him or her in any such capacity, subject to certain exclusions. Prior to the completion of this offering, we will procure additional insurance to provide coverage to our directors and officers against loss arising from claims relating to, among other things, public securities matters.

See also the undertakings set out in response to Item 17 herein.

Item 15. Recent Sales of Unregistered Securities

We have issued and sold the following securities since January 1, 2015:

1. From January 1, 2015 to September 30, 2018, we granted options to purchase 10,331,065 shares of our common stock with exercise prices ranging from $0.51 to $4.50 per share.

2. From January 1, 2015 to September 30, 2018, we issued and sold 2,551,594 shares of our common stock upon the exercise of options at exercise prices ranging from $0.51 to $2.26 per share.

3. From March 31, 2015 to August 25, 2017, we issued and sold to 25 accredited investors 36,523,788 shares of Series C preferred stock at a purchase price of $2.26 per share.

4. From October 13, 2015 to February 17, 2017, we issued warrants to purchase 3,901,622 shares of our Series C preferred stock at a price of $2.26 per share.

The sales of the above securities were deemed to be exempt from registration under the Securities Act with respect to items 3 and 4 above in reliance on Section 4(a)(2) of the Securities Act, or Regulation D promulgated thereunder and with respect to items 1 and 2 above in reliance on both Section 4(a)(2) of the Securities Act and Rule 701 promulgated under Section 3(b) of the Securities Act as transactions by an issuer not involving a public offering or transactions pursuant to compensatory benefit plans and contracts relating to compensation as provided under such Rule 701. The recipients of securities in each such transaction represented their intention to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof and appropriate legends were affixed to the share certificates and warrants issued in such transactions. All recipients had adequate access, through their relationships with us, to information about us.

Item 16. Exhibits and Financial Statement Schedules

(a) Exhibits.

Exhibit Number	Exhibit Title
1.1*	Form of Underwriting Agreement.
3.1	Amended and Restated Certificate of Incorporation of the Registrant as currently in effect.
3.2*	Form of Certificate of Amendment of Amended and Restated Certificate of Incorporation of the Registrant to be filed prior to the effectiveness of this offering.
3.3*	Amended and Restated Certificate of Incorporation of the Registrant, to be in effect upon the completion of this offering.
3.4	Bylaws of the Registrant as currently in effect.
3.5*	Amended and Restated Bylaws of the Registrant, to be in effect upon the completion of this offering.
4.1*	Specimen Common Stock Certificate of the Registrant.
4.2	Amended and Restated Registration Rights Agreement by and among the registrant and certain stockholders, dated July 7, 2017.
4.3	Amended and Restated Stockholders Agreement by and among the registrant and certain stockholders, dated July 7, 2017.
5.1*	Opinion of Wilson Sonsini Goodrich & Rosati, Professional Corporation.
10.1*	Form of Indemnification Agreement for directors and executive officers, to be in effect upon the completion of this offering.
10.2+	2007 Stock Plan, as amended, and related form agreements.
10.3*+	2019 Equity Incentive Plan and related form agreements.
10.4*+	2019 Employee Stock Purchase Plan and related form agreements.
10.5*+	Executive Incentive Compensation Plan.
10.6#	Supply Agreement by and between the registrant and Cordis Corporation, dated October 21, 2011, as amended by the Amendment dated March 12, 2012, the Second Amendment to Supply Agreement dated July 12, 2012, the Third Amendment to Supply Agreement dated April 19, 2013 and the Fourth Amendment to Supply Agreement dated April 9, 2018.
10.7#	License Agreement by and between the registrant and Cordis Corporation, dated December 17, 2010.
10.8#	Quality Assurance Agreement by and among the registrant and Lake Region Medical and affiliates, dated May 4, 2015.
10.9#	Amended and Restated Manufacturing and Supply Agreement by and between the registrant and Galt Medical Corporation, dated January 10, 2018.
10.10	Term Loan Agreement by and among the registrant, certain affiliates of CRG Partners III L.P. as lenders and certain subsidiary guarantors, dated October 13, 2015, as amended by Amendment No. 1 to Term Loan Agreement dated January 3, 2017, Amendment No. 2 to Term Loan Agreement dated June 22, 2017, Amendment No. 3 to Term Loan Agreement dated November 30, 2017, Amendment No. 4 to Term Loan Agreement dated June 25, 2018, Amendment No. 5 to Term Loan Agreement dated September 4, 2018, and Amendment No. 6 to Term Loan Agreement dated November 14, 2018 and effective as of October 31, 2018.
23.1*	Consent of Independent Registered Public Accounting Firm.
23.2*	Consent of Wilson Sonsini Goodrich & Rosati, Professional Corporation (See Exhibit 5.1).
24.1*	Power of Attorney (see page II-7).

* To be filed by amendment.

\+ Indicates management contract or compensatory plan.

Portions of the exhibit have been omitted pursuant to a request for confidential treatment. The omitted information has been filed separately with the SEC.

(b) Financial Statement Schedules.

All other schedules have been omitted because the information required to be set forth therein is not applicable or is shown in the consolidated financial statements or notes thereto. The table below presents Schedule II, Valuation and Qualifying Accounts, detailing the activity of the allowance for doubtful accounts and allowance for sales returns for the year ended December 31, 2017:

Description	Balance at Beginning of Year	Charged to expenses	Write offs	Balance at End of Year
Allowance for doubtful accounts receivable:				
Year ended December 31, 2017	$ 190,714	$ (38,710)	$ 2,950	$ 149,054
Allowance for sales returns:				
Year ended December 31, 2017	$ —	$ 461,765	$ —	$ 461,765

Item 17. Undertakings

The undersigned registrant hereby undertakes to provide to the underwriters at the closing specified in the underwriting agreement certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

The undersigned registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

EXHIBIT INDEX

Exhibit Number	Exhibit Title
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24.1*	Power of Attorney (see page II-7).

* To be filed by amendment.
\+ Indicates management contract or compensatory plan.
\# Portions of the exhibit have been omitted pursuant to a request for confidential treatment. The omitted information has been filed separately with the SEC.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Sunnyvale, State of California, on the day of , 2018.

SILK ROAD MEDICAL, INC.

By: _____

Erica J. Rogers
President, Chief Executive Officer and Director

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Erica J. Rogers and Lucas W. Buchanan, and each of them acting individually, as his or her true and lawful attorneys-in-fact and agents, with full power of each to act alone, with full powers of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to sign the registration statement filed herewith and any and all amendments to said registration statement (including post-effective amendments and any related registration statements thereto filed pursuant to Rule 462 and otherwise), and file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, with full power of each to act alone, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully for all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or his or their substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated:

Signature	Title	Date
Erica J. Rogers	President, Chief Executive Officer and Director (Principal Executive Officer)	, 2018
Lucas W. Buchanan	Chief Financial Officer (Principal Financial Officer)	, 2018
Ruoxi Chen	Director	, 2018
Tony M. Chou, M.D.	Director	, 2018
Jack W. Lasersohn	Director	, 2018
Robert E. Mittendorff, M.D.	Director	, 2018
Annette Rodriguez	Director	, 2018
Elizabeth H. Weatherman	Director	, 2018
Donald Zurbay	Director	, 2018

Delaware

The First State

I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE RESTATED CERTIFICATE OF "SILK ROAD MEDICAL, INC.", FILED IN THIS OFFICE ON THE SIXTH DAY OF JULY, A.D. 2017, AT 1:58 O'CLOCK P.M.

A FILED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE NEW CASTLE RECORDER OF DEED.

Jeffrey W. Bullock, Secretary of State

4319923 8100
SR# 20175106999

Authentication: 202836107
Date: 07-06-17

You may verify this certificate online at corp.delaware.gov/authver.shtml

SIXTH AMENDED AND RESTATED

CERTIFICATE OF INCORPORATION

OF

SILK ROAD MEDICAL, INC.

Silk Road Medical, Inc., a corporation organized and existing under and by virtue of the provisions of the General Corporation Law of the State of Delaware (the "DGCL"), hereby certifies as follows:

1. That the name of this corporation is "Silk Road Medical, Inc.", and that this corporation was originally incorporated pursuant to the DGCL on March 21, 2007.

2. Pursuant to Sections 242 and 245 of the DGCL, this Sixth Amended and Restated Certificate of Incorporation (the "Certificate of Incorporation") restates and integrates and further amends the provisions of the Amended and Restated Certificate of Incorporation of Silk Road Medical, Inc.

3. This Certificate of Incorporation was duly adopted by the written consent of the Board of Directors of Silk Road Medical, Inc. (the "Board") and by the written consent of the stockholders of Silk Road Medical, Inc. in accordance with the applicable provisions of Sections 141, 228, 242 and 245 of the DGCL.

4. The text of the Certificate of Incorporation of Silk Road Medical, Inc. is hereby restated and further amended to read in its entirety as follows:

ARTICLE I

The name of the corporation (the "Corporation") is:

Silk Road Medical, Inc.

ARTICLE II

The address of the registered office of the Corporation in the State of Delaware is Corporation Trust Center, 1209 Orange Street, Wilmington, Delaware 19801. The name of the registered agent of the Corporation at such address is Corporation Trust Company, in the county of New Castle.

ARTICLE III

The nature of the business or purposes to be conducted or promoted is to engage in any lawful act or activity for which corporations may be organized under the DGCL.

ARTICLE IV

The total number of shares of all classes of stock which the Corporation shall have authority to issue is (a) eighty million six hundred seventy three thousand eight hundred ninety five (80,673,895) shares of common stock, par value $0.001 per share ("Common Stock"), and (b) sixty four million nine hundred eighty seven thousand nine hundred sixty four (64,987,964) shares of preferred stock, par value $0.001 per share ("Preferred Stock"), of which (i) four million four hundred thousand (4,400,000) shares of Preferred Stock are hereby designated "Series A Preferred Stock" (the "Series A Preferred Stock"), (ii) three million (3,000,000) shares of Preferred Stock are hereby designated "Series A-1 Preferred Stock" (the "Series A-l Preferred Stock" and together with the Series A Preferred Stock, the "Existing Series A Preferred Stock"), (iii) sixteen million nine hundred fourteen thousand sixty nine (16,914,069) shares of Preferred Stock are hereby designated "Series B Preferred Stock" (the "Series B Preferred Stock") and (iv) forty million six hundred seventy three thousand eight hundred ninety five (40,673,895) shares of Preferred Stock are hereby designated "Series C Preferred Stock" (the "Series C Preferred Stock").

A. COMMON STOCK

1. General. The voting, dividend and liquidation rights of the holders of the Common Stock are subject to and qualified by the rights, powers and preferences of the holders of the Preferred Stock set forth herein.

2. Voting. The holders of the Common Stock are entitled to one vote for each share of Common Stock held by them at all meetings of stockholders (and actions taken by written consent in lieu of meetings) at which holders of the Common Stock are entitled to vote; provided, however, that the number of authorized shares of Common Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by (in addition to any vote of the holders of one or more series of Preferred Stock that may be required by the terms of the Certificate of Incorporation) the affirmative vote of the holders of shares of capital stock of the Corporation representing a majority of the votes represented by all outstanding shares of capital stock of the Corporation entitled to vote, irrespective of the provisions of Section 242(b)(2) of the DGCL and the holders of Common Stock shall not be entitled to any separate class vote in connection with any such increase or decrease of the aggregate number of authorized shares of Common Stock.

B. PREFERRED STOCK

The Existing Series A Preferred Stock, the Series B Preferred Stock and the Series C Preferred Stock have the following rights, preferences, powers, privileges and restrictions, qualifications and limitations. Unless otherwise indicated, references to "Sections" or "Subsections" in this Part B of this Article IV refer to sections and subsections of Part B of this Article IV.

1. Dividends.

1.1 The holders of shares of Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred Stock shall be entitled to receive on a pari passu basis dividends, out of any assets legally available therefor, prior and in preference to any declaration or payment of any dividend (other than dividends on shares of Common Stock payable solely in shares of Common Stock) on the Common Stock or any other stock ranking with respect to dividends or on liquidation junior to the Series C Preferred Stock, Series B Preferred Stock and the Existing Series A Preferred Stock (such stock being referred to hereinafter collectively as "Junior Stock"), at the rate of (i) $0.18 per share per annum for the Series C Preferred Stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to such class or series), (ii) $0.18 per share per annum for the Series B Preferred Stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to such class or series), (iii) $0.10 per share per annum for the Series A-1 Preferred Stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to such class or series) and (iv) $0.08 per share per annum for the Series A Preferred Stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to such class or series), in each case, payable when, as, and if declared by the Board; provided, however, that the Board shall not declare a dividend on the outstanding shares of Series C Preferred Stock, Series B Preferred Stock, Series A-1 Preferred Stock or Series A Preferred Stock unless the Board simultaneously declares a proportionate dividend on each of the Series C Preferred Stock, Series B Preferred Stock, Series A-1 Preferred Stock and Series A Preferred Stock. The right to dividends on shares of Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred Stock shall not be cumulative, and no right shall accrue to holders of Series C Preferred Stock, Series B Preferred Stock or Existing Series A Preferred Stock by reason of the fact that dividends on said shares are not declared in any prior period. Any dividends declared by the Board prior to the Original Issue Date and not paid prior to the Original Issue Date shall be forfeited and shall not be payable to the holders of the Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred Stock. In the event that the amount of dividends declared by the Board shall be insufficient to permit payment of the full aforesaid dividends, such dividends will be paid ratably to each holder of Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred Stock in proportion to the dividend amounts to which each holder of Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred Stock is entitled.

1.2 The Corporation shall not declare, pay or set aside any dividends on shares of Series C Preferred Stock, Series B Preferred Stock, Existing Series A Preferred Stock or Junior Stock (other than dividends on shares of Common Stock payable solely in shares of Common Stock) unless (in addition to the obtaining of any consents required elsewhere in the Certificate of Incorporation) the holders of the Series C Preferred Stock, Series B Preferred Stock and the Existing Series A Preferred Stock then outstanding receive the following:

1.2.1 With respect to the Series C Preferred Stock then outstanding, the holders of the then outstanding shares of Series C Preferred Stock shall receive, or simultaneously receive, a dividend on each outstanding share of Series C Preferred Stock in an amount at least equal to the sum of (i) the amount of the aggregate dividends then declared on such share of Series C Preferred Stock and not previously paid and (ii) (A) in the case of a dividend on Common Stock

or any class or series that is convertible into Common Stock (excluding the annual dividend permitted to be declared and paid on the Series C Preferred Stock pursuant to Section 1.1 and any dividend payable pursuant to clause (i) above, the Series B Preferred Stock pursuant to Section 1.1 and any dividend payable pursuant to clause 1.2.2(i) below, the Series A-1 Preferred Stock pursuant to Section 1.1 and any dividend payable pursuant to clause 1.2.3(i) below or the Series A Preferred Stock pursuant to pursuant to Section 1.1 and any dividend payable pursuant to clause 1.2.4(i) below), that dividend per share of Series C Preferred Stock as would equal the product of (1) the dividend payable on each share of such class or series determined, if applicable, as if all shares of such class or series had been converted into Common Stock pursuant to Section 4.1 and (2) the number of shares of Common Stock issuable upon conversion of one share of Series C Preferred Stock pursuant to Section 4.1, in each case calculated on the record date for determination of holders entitled to receive such dividend or (B) in the case of a dividend on any class or series that is not convertible into Common Stock, at a rate per share of Series C Preferred Stock determined by (1) dividing the amount of the dividend payable on each share of such class or series of capital stock by the original issuance price of such class or series of capital stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to such class or series) and (2) multiplying such fraction by an amount equal to the Series C Original Issue Price. The "Series C Original Issue Price" shall mean $2.26 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, stock distribution or combination, subdivision, reclassification or other corporate actions having the similar effect with respect to the Series C Preferred Stock.

1.2.2 With respect to the Series B Preferred Stock then outstanding, the holders of the then outstanding shares of Series B Preferred Stock shall receive, or simultaneously receive, a dividend on each outstanding share of Series B Preferred Stock in an amount at least equal to the sum of (i) the amount of the aggregate dividends then declared on such share of Series B Preferred Stock and not previously paid and (ii) (A) in the case of a dividend on Common Stock or any class or series that is convertible into Common Stock (excluding the annual dividend permitted to be declared and paid on the Series B Preferred Stock pursuant to Section 1.1 and any dividend payable pursuant to clause (i) above, the Series C Preferred Stock pursuant to Section 1.1 and any dividend payable pursuant to clause 1.2.1(i) above, the Series A-1 Preferred Stock pursuant to Section 1.1 and any dividend payable pursuant to clause 1.2.3(i) below or the Series A Preferred Stock pursuant to pursuant to Section 1.1 and any dividend payable pursuant to clause 1.2.4(i) below), that dividend per share of Series B Preferred Stock as would equal the product of (1) the dividend payable on each share of such class or series determined, if applicable, as if all shares of such class or series had been converted into Common Stock pursuant to Section 4.1 and (2) the number of shares of Common Stock issuable upon conversion of one share of Series B Preferred Stock pursuant to Section 4.1, in each case calculated on the record date for determination of holders entitled to receive such dividend or (B) in the case of a dividend on any class or series that is not convertible into Common Stock, at a rate per share of Series B Preferred Stock determined by (1) dividing the amount of the dividend payable on each share of such class or series of capital stock by the original issuance price of such class or series of capital stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to such class or series) and (2) multiplying such fraction by an amount equal to the Series B Original Issue Price. The "Series B Original Issue Price" shall mean $2.26 per share, subject to

appropriate adjustment in the event of any stock dividend, stock split, stock distribution or combination, subdivision, reclassification or other corporate actions having the similar effect with respect to the Series B Preferred Stock.

1.2.3 With respect to the Series A-1 Preferred Stock then outstanding, the holders of the then outstanding shares of Series A-1 Preferred Stock shall receive, or simultaneously receive, a dividend on each outstanding share of Series A-1 Preferred Stock in an amount at least equal to the sum of (i) the amount of the aggregate dividends then declared on such share of Series A-1 Preferred Stock and not previously paid and (ii) (A) in the case of a dividend on Common Stock or any class or series that is convertible into Common Stock (excluding the annual dividend permitted to be declared and paid on the Series A-1 Preferred Stock pursuant to Section 1.1 and any dividend payable pursuant to clause (i) above, the Series C Preferred Stock pursuant to Section 1.1 and any dividend payable pursuant to clause 1.2.1(i) above, the Series B Preferred Stock pursuant to Section 1.1 and any dividend payable pursuant to clause 1.2.2(i) above or the Series A Preferred Stock pursuant to pursuant to Section 1.1 and any dividend payable pursuant to clause 1.2.4(i) below), that dividend per share of Series A-1 Preferred Stock as would equal the product of (1) the dividend payable on each share of such class or series determined, if applicable, as if all shares of such class or series had been converted into Common Stock pursuant to Section 4.1 and (2) the number of shares of Common Stock issuable upon conversion of one share of Series A-1 Preferred Stock pursuant to Section 4.1, in each case calculated on the record date for determination of holders entitled to receive such dividend or (B) in the case of a dividend on any class or series that is not convertible into Common Stock, at a rate per share of Series A-1 Preferred Stock determined by (1) dividing the amount of the dividend payable on each share of such class or series of capital stock by the original issuance price of such class or series of capital stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to such class or series) and (2) multiplying such fraction by an amount equal to the Series A-1 Original Issue Price. The "Series A-1 Original Issue Price" shall mean $1.25 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, stock distribution or combination, subdivision, reclassification or other corporate actions having the similar effect with respect to the Series A-1 Preferred Stock.

1.2.4 With respect to the Series A Preferred Stock then outstanding, the holders of the then outstanding shares of Series A Preferred Stock shall receive, or simultaneously receive, a dividend on each outstanding share of Series A Preferred Stock in an amount at least equal to the sum of (i) the amount of the aggregate dividends then declared on such share of Series A Preferred Stock and not previously paid and (ii) (A) in the case of a dividend on Common Stock or any class or series that is convertible into Common Stock (excluding the annual dividend permitted to be declared and paid on the Series A Preferred Stock pursuant to Section 1.1 and any dividend payable pursuant to clause (i) above, the Series C Preferred Stock pursuant to Section 1.1 and any dividend payable pursuant to clause 1.2.1(i) above, the Series B Preferred Stock pursuant to Section 1.1 and any dividend payable pursuant to clause 1.2.2(i) above or the Series A-1 Preferred Stock pursuant to pursuant to Section 1.1 and any dividend payable pursuant to clause 1.2.3(i) above), that dividend per share of Series A Preferred Stock as would equal the product of (1) the dividend payable on each share of such class or series determined, if applicable, as if all shares of such class or series had been converted into Common Stock pursuant to Section 4.1 and (2) the number of shares of Common Stock issuable upon conversion of one share of Series A Preferred Stock pursuant

to Section 4.1, in each case calculated on the record date for determination of holders entitled to receive such dividend or (B) in the case of a dividend on any class or series that is not convertible into Common Stock, at a rate per share of Series A Preferred Stock determined by (1) dividing the amount of the dividend payable on each share of such class or series of capital stock by the original issuance price of such class or series of capital stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to such class or series) and (2) multiplying such fraction by an amount equal to the Series A Original Issue Price. The "Series A Original Issue Price" shall mean $1.00 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, stock distribution or combination, subdivision, reclassification or other corporate actions having the similar effect with respect to the Series A Preferred Stock.

2. Liquidation, Dissolution or Winding Up.

2.1 Series C Preferred Stock Liquidation Preference. In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation (including a Deemed Liquidation Event (as defined below)), the holders of Series C Preferred Stock shall be entitled to be paid out of the assets of the Corporation available for distribution to its stockholders before any payment shall be made to the holders of Series B Preferred Stock, the Existing Series A Preferred Stock and Junior Stock by reason of their ownership thereof, a per share amount in cash equal to the greater of (a) the Series C Original Issue Price, plus any declared and unpaid dividends payable thereon, and (b) such amount per share as would have been payable had all shares of Series C Preferred Stock been converted into Common Stock pursuant to Section 4.1 immediately prior to such liquidation, dissolution or winding up (the amount payable pursuant to this sentence is hereinafter referred to as the "Series C Liquidation Amount"). If upon any such liquidation, dissolution or winding up of the Corporation (including a Deemed Liquidation Event), the assets of the Corporation available for distribution to its stockholders shall be insufficient to pay the holders of Series C Preferred Stock the full amount to which they shall be entitled under Section 2.1, the holders of Series C Preferred Stock shall share ratably in any distribution of the assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect of the shares held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full. The obligation to pay the Series C Liquidation Amount in cash may be waived in writing by the holders of at least a majority of the then outstanding shares of Series C Preferred Stock, given in writing or by vote at a meeting, consenting or voting (as the case may be) separately as a class,

2.2 Series B Preferred Stock and Existing Series A Preferred Stock Liquidation Preference. In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation (including a Deemed Liquidation Event (as defined below)), after the payment of all preferential amounts required to be paid to the holders of Series C Preferred Stock pursuant to Section 2.1, the Series B Preferred Stock and the Existing Series A Preferred Stock then outstanding shall be entitled to be paid on a pari passu basis out of the assets of the Corporation available for distribution to its stockholders before any payment shall be made to the holders of Junior Stock by reason of their ownership thereof, a per share amount in cash equal to the following:

2.2.1 With respect to the Series B Preferred Stock then outstanding, the greater of (a) the Series B Original Issue Price, plus any declared and unpaid dividends payable thereon, and (b) such amount per share as would have been payable had all shares of Series B Preferred Stock been converted into Common Stock pursuant to Section 4.1 immediately prior to such liquidation, dissolution or winding up (the amount payable pursuant to this sentence is hereinafter referred to as the "Series B Liquidation Amount").

2.2.2 With respect to the Series A-1 Preferred Stock then outstanding, the greater of (a) the Series A-1 Original Issue Price, plus any declared and unpaid dividends payable thereon, and (b) such amount per share as would have been payable had all shares of Series A-1 Preferred Stock been converted into Common Stock pursuant to Section 4.1 immediately prior to such liquidation, dissolution or winding up (the amount payable pursuant to this sentence is hereinafter referred to as the "Series A-1 Liquidation Amount").

2.2.3 With respect to the Series A Preferred Stock then outstanding, the greater of (a) the Series A Original Issue Price, plus any declared and unpaid dividends payable thereon, and (b) such amount per share as would have been payable had all shares of Series A Preferred Stock been converted into Common Stock pursuant to Section 4.1 immediately prior to such liquidation, dissolution or winding up (the amount payable pursuant to this sentence is hereinafter referred to as the "Series A Liquidation Amount").

2.2.4 If upon any such liquidation, dissolution or winding up of the Corporation (including a Deemed Liquidation Event), the assets of the Corporation available for distribution to its stockholders shall be insufficient to pay the holders of Series B Preferred Stock and the Existing Series A Preferred Stock the full amount to which they shall be entitled under Section 2.2, the holders of Series B Preferred Stock and the Existing Series A Preferred Stock shall share ratably in any distribution of the assets available for distribution under Section 2.2 in proportion to the respective amounts which would otherwise be payable in respect of the shares held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full. The obligation to pay the Series B Liquidation Amount, the Series A-1 Liquidation Amount and the Series A Liquidation Amount in cash may be waived in writing by the holders of at least a majority of the then outstanding shares of Series B Preferred Stock, given in writing or by vote at a meeting, consenting or voting (as the case may be) separately as a class.

2.3 Distribution of Remaining Assets. In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation (including a Deemed Liquidation Event), after the payment of all preferential amounts required to be paid to the holders of Series C Preferred Stock pursuant to Section 2.1 and the holders of Series B Preferred Stock and the Existing Series A Preferred Stock pursuant to Section 2.2, the remaining assets of the Corporation available for distribution to its stockholders shall be distributed among the holders of Common Stock (which shall include shares of restricted Common Stock only to the extent such shares are vested), pro rata based on the number of shares held by each such holder.

2.4 Deemed Liquidation Events.

2.4.1 Definition. Unless waived in writing by the holders of at least a majority of the then outstanding shares of (A) Series C Preferred Stock, given in writing or by vote at a meeting, consenting or voting (as the case may be) separately as a class, and (B) Series B Preferred Stock, given in writing or by vote at a meeting, consenting or voting (as the case may be) separately as a class, each of the following events shall be considered a "Deemed Liquidation Event":

(a) a merger or consolidation in which (i) the Corporation is a constituent party or (ii) a subsidiary of the Corporation is a constituent party and the Corporation issues shares of its capital stock pursuant to such merger or consolidation, except any such merger or consolidation involving the Corporation or a subsidiary of the Corporation in which the shares of capital stock of the Corporation outstanding immediately prior to such merger or consolidation continue to represent, or are converted into or exchanged for shares of capital stock or other equity securities that represent, immediately following such merger or consolidation, at least a majority, by voting power, of the capital stock or other equity securities of (1) the surviving or resulting corporation, limited liability company, partnership, association, joint-stock corporation, trust or other form of business entity (a "Party") or (2) if the surviving or resulting Party is a wholly owned subsidiary of another Party immediately following such merger or consolidation, the parent entity of such surviving or resulting Party; or

(b) the sale, lease, transfer, exclusive license or other disposition, in a single transaction or series of related transactions, by the Corporation or any subsidiary of the Corporation of all or substantially all the assets of the Corporation and its subsidiaries taken as a whole, or the sale or disposition (whether by merger or otherwise) of one or more subsidiaries of the Corporation if substantially all of the assets of the Corporation and its subsidiaries taken as a whole are held by such subsidiary or subsidiaries, except where such sale, lease, transfer, exclusive license or other disposition is to a direct or indirect wholly owned subsidiary of the Corporation.

2.4.2 Amount Deemed Paid or Distributed. The amount deemed paid or distributed to the holders of capital stock of the Corporation upon any liquidation, dissolution or winding up of the Corporation, including any Deemed Liquidation Event, shall be the cash or the value of the property, rights or securities paid or distributed to such holders by the Corporation or the acquiring person, firm or other entity. The value of such property, rights or securities shall be determined in good faith by the Board, without attributing any discount for lack of liquidity or lack of control.

2.5 Allocation of Contingent Consideration. In the event of a Deemed Liquidation Event, if any portion of the consideration payable to the stockholders of the Corporation is placed into escrow and/or is payable to the stockholders of the Corporation subject to contingencies, the definitive agreement with respect to such Deemed Liquidation Event shall provide that (a) the portion of such consideration that is not placed in escrow and not subject to any contingencies (the "Initial Consideration") shall be allocated among the holders of capital stock of the Corporation in accordance with Sections 2.1 and 2.2 as if the Initial Consideration were the only consideration payable in connection with such Deemed Liquidation Event and (b) any additional consideration that becomes payable to the stockholders of the Corporation upon release from escrow or satisfaction of contingencies shall be allocated among the holders of capital stock of the

Corporation in accordance with Sections 2.1 and 2.2 after taking into account the previous payment of the Initial Consideration as part of the same transaction.

3. Voting.

3.1 General. On any matter presented to the stockholders of the Corporation for their action or consideration at any meeting of stockholders of the Corporation (or by written consent of stockholders in lieu of a meeting), each holder of outstanding shares of Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred Stock shall be entitled to cast the number of votes equal to the number of whole shares of Common Stock into which the shares of Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred Stock held by such holder are convertible pursuant to Section 4.1 as of the record date for determining stockholders entitled to vote on such matter. Except as provided by the DGCL or other applicable law or by the other provisions of the Certificate of Incorporation, holders of Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred Stock shall vote together with the holders of Common Stock as a single class on all matters.

3.2 Election of Directors. The holders of record of at least a majority of outstanding shares of Existing Series A Preferred Stock, exclusively and as a separate class, shall be entitled to elect two (2) directors of the Corporation (the "Series A Directors"). The holders of record of at least a majority of the outstanding shares of Series B Preferred Stock, exclusively and as a separate class, shall be entitled to elect three (3) directors of the Corporation (the "Series B Directors"); provided that one (1) of the Series B Directors (such Series B Director, the "Series B Independent Director") shall not be a then-current employee of any holder of Series B Preferred Stock or any affiliated investment fund or management entity of any holder of Series B Preferred Stock; provided, further, that an "executive in residence" shall not be deemed an employee of any holder of Series B Preferred Stock or any affiliated fund or management entity of any holder of Series B Preferred Stock. The holders of record of at least a majority of the outstanding shares of Series C Preferred Stock, exclusively and as a separate class, shall be entitled to elect two (2) directors of the Corporation (the "Series C Directors"). Any Series A Director, Series B Director, Series B Independent Director or Series C Director so elected may be removed without cause by, and only by, the affirmative vote of the holders of the shares of capital stock entitled to elect such director or directors, given either at a special meeting of such stockholders duly called for that purpose or pursuant to a written consent of such stockholders. The holders of record of the shares of Common Stock and of any other class or series of voting stock (including the Series C Preferred Stock, Series B Preferred Stock and the Existing Series A Preferred Stock), exclusively and voting together as a single class, shall be entitled to elect the balance of the total number of directors of the Corporation, if any. If the holders of shares of a class, classes or series of capital stock fail to elect a sufficient number of directors to fill all directorships for which they are entitled to elect directors, voting pursuant to this Section 3.2, then any directorship not so filled shall remain vacant until such time as the holders of such class, classes or series of capital stock elect a person to fill such directorship by vote or written consent in lieu of a meeting; and no such directorship may be filled by the Board or the stockholders of the Corporation other than by the stockholders of the Corporation that are entitled to elect a person to fill such directorship, voting pursuant to this Section 3.2. At any meeting held for the purpose of electing a Series A Director, Series B Director, Series B Independent Director or Series C Director, as applicable, the presence in person or by

proxy of the holders of a majority of the outstanding shares of the class or series entitled to elect such director shall constitute a quorum for the purpose of electing such director. Except as otherwise provided in this Section 3.2, a vacancy in any directorship filled by the holders of any class or series shall be filled only by vote or written consent in lieu of a meeting of the holders of such class or series or by any remaining director or directors elected by the holders of such class or series pursuant to this Section 3.2. There shall be no cumulative voting.

3.3 Protective Provisions. The Corporation shall not, and shall not permit any subsidiary to, either directly or indirectly, by amendment, merger, consolidation or otherwise, do any of the following without (in addition to any other vote required by the DGCL or the Certificate of Incorporation) the written consent or affirmative vote of the holders of at least a majority of the then outstanding shares of (A) Series C Preferred Stock, given in writing or by vote at a meeting, consenting or voting (as the case may be) separately as a class, and (B) Series B Preferred Stock, given in writing or by vote at a meeting, consenting or voting (as the case may be) separately as a class:

(a) liquidate, dissolve or wind-up the business and affairs of the Corporation or any subsidiary, effect any Deemed Liquidation Event or any reorganization, recapitalization, reclassification, consolidation or merger or consent to any of the foregoing;

(b) amend, change, waive, alter or repeal any provision of the Certificate of Incorporation or Bylaws of the Corporation or any subsidiary;

(c) create, or authorize the creation of, or issue or obligate itself to issue shares of capital stock, including any additional class or series of capital stock or any additional shares of Preferred Stock, including the Existing Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock (except, (i) as contemplated by the Securities Purchase Agreement, dated as of the Original Issue Date, by and among the Corporation and certain stockholders of the Corporation (setting forth certain terms of the purchase of shares of Series C Preferred Stock on the Original Issue Date (as the same may be amended from time to time, the "Purchase Agreement")), (ii) as contemplated by the Warrants to Purchase Stock, dated as of the Original Issue Date, by and among the Corporation and certain stockholders of the Corporation (setting forth certain terms for the exercise of the warrant for shares of Series C Preferred Stock (the "Series C Preferred Warrants")) and (iii) for the issuance of additional shares of Common Stock, including additional shares issued pursuant the exercise of stock options granted pursuant to stock option, stock bonus, stock incentive or similar plans that have been approved by the Board), or increase the authorized number of shares of Preferred Stock, Series C Preferred Stock, Series B Preferred Stock, Existing Series A Preferred Stock or increase the authorized number of shares of any class or series of capital stock;

(d) permit any subsidiary to create, or authorize the creation of, or issue or obligate itself to issue shares of, any class or series of capital stock (except in the case of a direct or indirect wholly owned subsidiary of the Corporation, for the issuance of shares of capital stock to the Corporation or another direct or indirect wholly owned subsidiary of the Corporation);

(e) reclassify, alter or amend any security of the Corporation or any subsidiary;

(f) purchase or redeem (or permit any subsidiary to purchase or redeem) or pay or declare any dividend or make any distribution on, any shares of capital stock of the Corporation other than repurchases of stock from former employees, officers, directors, consultants or other persons who performed services for the Corporation or any subsidiary in connection with the cessation of such employment or service, provided such repurchases have been approved by the Board;

(g) (i) except for indebtedness for borrowed money that would not require the written consent or affirmative vote of the holders of at least a majority of the then outstanding shares of Series C Preferred Stock and B Preferred Stock pursuant to clause (ii) below, create, or authorize the creation of, or issue, or authorize the issuance of or guarantee any debt security, or permit any subsidiary to take any such action with respect to any debt security, or (ii) incur or agree to incur or enter into any agreement permitting the Corporation or its subsidiaries to incur, indebtedness for borrowed money in excess of $500,000 in the aggregate, or (iii) amend, modify, waive or otherwise alter the terms of any agreement governing the terms of any material indebtedness of the Corporation or any subsidiary (except for agreements governing indebtedness permitted by clause (ii) above, provided such amendment, modification, waiver or alteration has been approved by the Board);

(h) enter into any transaction between or among the Corporation or any subsidiary, on the one hand, and any director, officer, employee or holder, directly or indirectly, of more than 5% of the outstanding capital stock of any class or series of capital stock of the Corporation or any subsidiary, members of the family of any such person, or any affiliate or other associate, on the other hand, except, (i) in the case of employees, for transactions on customary terms related to such person's employment or pursuant to an employment agreement approved by the Board, (ii) for the Purchase Agreement or (iii) for the Series C Preferred Warrants;

(i) incur, repay, forgive or guarantee any indebtedness between the Corporation or any subsidiary and any director, officer, employee or holder, directly or indirectly, of more than 5% of the outstanding capital stock of any class or series of capital stock of the Corporation or any subsidiary, members of the family of any such person, or any affiliate or other associate (except (i) for the reimbursement of expenses of employees for employment-related costs incurred in accordance with the Corporation's reimbursement policies and (ii) any recourse debt related to executive equity purchases approved by the Board); or

(j) increase or decrease the authorized number of directors constituting the Board to greater than or less than eight (8).

3.4 Additional Series C Protective Provisions. The Corporation shall not, and shall not permit any subsidiary to, either directly or indirectly, by amendment, merger, consolidation or otherwise, do any of the following without (in addition to any other vote required by the DGCL or the Certificate of Incorporation) the written consent or affirmative vote of the holders of at least 70% of the then outstanding shares of Series C Preferred Stock, given in writing or by vote at a meeting, consenting or voting (as the case may be) separately as a class:

(a) amend, change, waive, alter or repeal any provision of the Certificate of Incorporation or Bylaws of the Corporation or any subsidiary in a manner that materially and adversely affects the rights, preferences or privileges of the Series C Preferred Stock; or

(b) reclassify, alter or amend any security of the Corporation or any subsidiary in a manner that materially and adversely affects the rights, preferences or privileges of the Series C Preferred Stock.

provided that, clauses (a) and (b) above would not apply to any amendment, alteration or repeal to any provision of the Corporation's Certificate of Incorporation or bylaws made solely with respect to (i) the creation or issuance of any class or series of capital stock, including Preferred Stock, (ii) any merger, combination or consolidation resulting in the Series C Preferred Stock being exchanged, combined or converted into other securities, or (iii) any conversion of the Series C Preferred Stock in accordance with the Corporation's Certificate of Incorporation.

4. Optional Conversion.

The holders of the Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred Stock shall have conversion rights as follows (the "Conversion Rights"):

4.1 Right to Convert.

4.1.1 Conversion Ratio. Each share of Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred Stock shall be convertible, at the option of the holder thereof, at any time and from time to time, and without the payment of additional consideration by the holder thereof, into such number of fully paid and nonassessable shares of Common Stock as is determined by dividing (a) with respect to the Series C Preferred Stock, the Series C Original Issue Price by the Series C Conversion Price (as defined below) in effect at the time of conversion, (b) with respect to the Series B Preferred Stock, the Series B Original Issue Price by the Series B Conversion Price (as defined below) in effect at the time of conversion, (c) with respect to the Series A-1 Preferred Stock, the Series A-1 Original Issue Price by the Series A-1 Conversion Price (as defined below) in effect at the time of conversion and (d) with respect to the Series A Preferred Stock, the Series A Original Issue Price by the Series A Conversion Price (as defined below) in effect at the time of conversion. The "Series C Conversion Price" shall initially be equal to $2.26, subject to adjustment as set forth herein. The "Series B Conversion Price" shall initially be equal to $2.26, subject to adjustment as set forth herein. The "Series A-1 Conversion Price" shall initially be equal to $1.25, subject to adjustment as set forth herein. The "Series A Conversion Price" shall initially be equal to $1.00, subject to adjustment as set forth herein. As used herein, "Applicable Conversion Price" shall mean (i) the then-applicable Series C Conversion Price with respect to the Series C Preferred Stock, (ii) the then-applicable Series B Conversion Price with respect to the Series B Preferred Stock, (iii) the then-applicable Series A-1 Conversion Price with respect to the Series A-1 Preferred Stock and (iv) the then-applicable Series A Conversion Price with respect the Series A Preferred Stock. The Applicable Conversion Price, and the rate at which shares of Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred Stock may be converted into shares of Common Stock, shall be subject to adjustment as provided below.

4.2 Fractional Shares. No fractional shares of Common Stock shall be issued upon conversion of the Series C Preferred Stock, Series B Preferred Stock or Existing Series A Preferred Stock. In lieu of any fractional shares to which the holder would otherwise be entitled, the Corporation shall pay cash equal to such fraction multiplied by the fair market value of a share of Common Stock as determined in good faith by the Board. Whether or not fractional shares would be issuable upon such conversion shall be determined on the basis of the total number of shares of Series C Preferred Stock, Series B Preferred Stock or Existing Series A Preferred Stock, as applicable, the holder is at the time converting into Common Stock and the aggregate number of shares of Common Stock issuable upon such conversion.

4.3 Mechanics of Conversion.

4.3.1 Notice of Conversion. In order for a holder of Series C Preferred Stock, Series B Preferred Stock or Existing Series A Preferred Stock, as applicable, to voluntarily convert shares of Series C Preferred Stock, Series B Preferred Stock or Existing Series A Preferred Stock, as applicable, into shares of Common Stock, such holder shall surrender the certificate or certificates representing such shares of Series C Preferred Stock, Series B Preferred Stock or Existing Series A Preferred Stock, as applicable (or, if such registered holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate which agreement shall not require the posting of a bond), at the office of the transfer agent for the Preferred Stock (or at the principal office of the Corporation if the Corporation serves as its own transfer agent), together with written notice that such holder elects to convert all or any number of the shares of the Series C Preferred Stock, Series B Preferred Stock or Existing Series A Preferred Stock, as applicable, represented by such certificate or certificates and, if applicable, any event on which such conversion is contingent. Such notice shall state such holder's name or the names of the nominees in which such holder wishes the certificate or certificates representing shares of Common Stock to be issued. If required by the Corporation, certificates surrendered for conversion shall be endorsed or accompanied by a written instrument or instruments of transfer, in form reasonably satisfactory to the Corporation, duly executed by the registered holder or his, her or its attorney-in-fact duly authorized in writing. The close of business on the date of receipt by the transfer agent (or by the Corporation if the Corporation serves as its own transfer agent) of such certificates (or lost certificate affidavit and agreement) and notice shall be the time of conversion (the "Conversion Time"), and the shares of Common Stock issuable upon conversion of the shares represented by such certificate shall be deemed to be outstanding of record as of such date. The Corporation shall, promptly following the Conversion Time, (i) issue and deliver to such holder of Series C Preferred Stock, Series B Preferred Stock or Existing Series A Preferred Stock, as applicable, or to his, her or its nominees, a certificate or certificates representing the number of full shares of Common Stock issuable upon such conversion in accordance with the provisions hereof and a certificate representing the number (if any) of the shares of Series C Preferred Stock, Series B Preferred Stock or Existing Series A Preferred Stock, as applicable, represented by the surrendered certificate that were not converted into Common Stock, and (ii) pay in cash such amount as provided in Section 4.2 in lieu of any fraction of a share of Common Stock otherwise issuable upon such conversion.

4.3.2 Reservation of Shares. The Corporation shall at all times when the Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred Stock, as applicable, shall be outstanding, reserve and keep available out of its authorized but unissued capital stock, for the purpose of effecting the conversion of the Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred Stock, such number of its duly authorized shares of Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding Series C Preferred Stock (including shares of Series C Preferred Stock issued or issuable pursuant to the exercise of the warrants for Series C Preferred Stock), Series B Preferred Stock and Existing Series A Preferred Stock; and if at any time the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of the Series C Preferred Stock (including shares of Series C Preferred Stock issued or issuable pursuant to the exercise of the warrants for Series C Preferred Stock), Series B Preferred Stock and Existing Series A Preferred Stock, the Corporation shall take such corporate action as may be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purposes, including, without limitation, engaging in best efforts to obtain the requisite stockholder approval of any necessary amendment to the Certificate of Incorporation. Before taking any action which would cause an adjustment reducing the Applicable Conversion Price below the then par value of the shares of Common Stock issuable upon conversion of the Series C Preferred Stock, Series B Preferred Stock or Existing Series A Preferred Stock, as applicable, the Corporation will take any corporate action which may, in the opinion of its counsel, be necessary in order that the Corporation may validly and legally issue fully paid and nonassessable shares of Common Stock at such adjusted Applicable Conversion Price.

4.3.3 Effect of Conversion. All shares of Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred Stock which shall have been surrendered for conversion as herein provided shall no longer be deemed to be outstanding and all rights with respect to such shares shall immediately cease and terminate at the Conversion Time, except only the right of the holders thereof to receive shares of Common Stock in exchange therefor and to receive payment in lieu of any fraction of a share otherwise issuable upon such conversion as provided in Section 4.2. Any shares of Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred Stock so converted shall be retired and cancelled and may not be reissued as shares of such series or any other class or series, and the Corporation may thereafter take such appropriate action (without the need for stockholder action) as may be necessary to reduce the authorized number of shares of Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred Stock accordingly.

4.3.4 No Dividend Rights. Upon an optional conversion pursuant to Section 4.1 or a mandatory conversion pursuant to Section 5.1.2, Section 5.1.3 or Section 5.1.4, any dividends payable on such Series C Preferred Stock, Series B Preferred Stock or Existing Series A Preferred Stock, as applicable, that have been declared but remain unpaid, shall be forfeited by the holder of such shares of Series C Preferred Stock, Series B Preferred Stock, Existing Series A Preferred Stock and Junior Preferred being converted.

4.3.5 Taxes. The Corporation shall pay any and all issue and other similar taxes that may be payable in respect of any issuance or delivery of shares of Common Stock upon conversion of shares of Series C Preferred Stock, Series B Preferred Stock, Existing Series A

Preferred Stock and Junior Preferred Stock pursuant to this Section 4. The Corporation shall not, however, be required to pay any tax which may be payable in respect of any transfer involved in the issuance and delivery of shares of Common Stock in a name other than that in which the shares of Series C Preferred Stock, Series B Preferred Stock, Existing Series A Preferred Stock and Junior Preferred Stock, as applicable, so converted were registered, and no such issuance or delivery shall be made unless and until the person or entity requesting such issuance has paid to the Corporation the amount of any such tax or has established, to the satisfaction of the Corporation, that such tax has been paid.

4.4 Adjustments to Applicable Conversion Price for Diluting Issues.

4.4.1 Special Definitions. For purposes of this Article IV, the following definitions shall apply:

(a) "Additional Shares of Common Stock" shall mean all shares of Common Stock issued (or, pursuant to Section 4.4.3 below, deemed to be issued) by the Corporation after the Original Issue Date, other than (1) the following shares of Common Stock and (2) shares of Common Stock deemed issued pursuant to the following Options and Convertible Securities (clauses (1) and (2), collectively, "Exempted Securities"):

(i) shares of Common Stock issued or issuable upon conversion of outstanding shares of Series C Preferred Stock (including shares of Series C Preferred Stock issued or issuable pursuant to the exercise of the warrants for Series C Preferred Stock), Series B Preferred Stock and Existing Series A Preferred Stock;

(ii) shares of Common Stock issued by reason of a dividend, stock split or other distribution on shares of Common Stock that is covered by Section 4.5, 4.6, 4.7 or 4.8;

(iii) shares of Common Stock offered pursuant to a registration statement filed under the Securities Act of 1933, as amended, approved by the Board;

(iv) shares of Common Stock or Options (provided such Options are limited to a right subscribe for, purchase or otherwise acquire Common Stock) issued to employees or directors of, or consultants or advisors to, the Corporation or any of its subsidiaries pursuant to a stock incentive plan approved by the Board or pursuant to any employment agreement, restricted stock agreement, option pool, stock option, stock bonus or other employee stock plans for the benefit of the employees of the Corporation approved by the Board;

(v) shares of Common Stock or Options (provided such Options are limited to a right to subscribe for, purchase or otherwise acquire Common Stock) issued (as consideration for the transaction and not in connection with financing the transaction) pursuant to the acquisition of another Party by the Corporation by merger, purchase of substantially all of the assets or other reorganization

or to a joint venture agreement, provided, that such issuances are approved by the Board; or

(vi) shares of Common Stock or Options (provided such Options are limited to a right subscribe for, purchase or otherwise acquire Common Stock) issued (as consideration for the transaction and not in connection with financing the transaction) to third parties (a) in connection with strategic partnerships or (b) providing the Corporation with equipment leases, real property leases, loans or credit lines, in each of clauses (a) and (b), pursuant to arrangements approved by the Board.

(b) "Convertible Securities" shall mean any evidences of indebtedness, shares or other securities directly or indirectly convertible into or exchangeable for Common Stock, but excluding Options.

(c) "Filing Date" shall mean the date upon which this Restated Certificate of Incorporation is accepted for filing by the Secretary of State of the State of Delaware.

(d) "Option" shall mean rights, options or warrants to subscribe for, purchase or otherwise acquire Common Stock or Convertible Securities.

(e) "Original Issue Date" shall mean August 7, 2014.

4.4.2 No Adjustment of Applicable Conversion Price. Notwithstanding the provisions of this Section 4.4, no adjustment in the Applicable Conversion Price shall be made as the result of the issuance or deemed issuance of Additional Shares of Common Stock if the Corporation receives written notice from (i) the holders of at least a majority of the then outstanding shares of Series C Preferred Stock and (ii) the holders of at least a majority of the then outstanding shares Series B Preferred Stock, in each case agreeing that no such adjustment shall be made as the result of the issuance or deemed issuance of such Additional Shares of Common Stock.

4.4.3 Deemed Issue of Additional Shares of Common Stock.

(a) If the Corporation at any time or from time to time after the Original Issue Date shall issue any Options or Convertible Securities (excluding Options or Convertible Securities which are themselves Exempted Securities) or shall fix a record date for the determination of holders of any class of securities entitled to receive any such Options or Convertible Securities, then the maximum number of shares of Common Stock (as set forth in the instrument relating thereto, assuming the satisfaction of any conditions to exercisability, convertibility or exchangeability but without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or, in the case of Convertible Securities and Options therefor, the conversion or exchange of such Convertible Securities, shall be deemed to be Additional Shares of Common Stock issued as of the time of such issue or, in case such a record date shall have been fixed, as of the close of business on such record date.

(b) If the terms of any Option or Convertible Security, the issuance of which resulted in an adjustment to the Applicable Conversion Price pursuant to the terms of Section 4.4.4,

are revised as a result of an amendment to such terms or any other adjustment (including an accreting dividend or liquidation preference that adjusts the applicable conversion rate or number of shares issuable pursuant to such Option or Convertible Security) pursuant to the provisions of such Option or Convertible Security (but excluding automatic adjustments to such terms pursuant to anti-dilution or similar provisions of such Option or Convertible Security) to provide for either (1) any increase or decrease in the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any such Option or Convertible Security or (2) any increase or decrease in the consideration payable to the Corporation upon such exercise, conversion and/or exchange, then, effective upon such increase or decrease becoming effective, the Applicable Conversion Price computed upon the original issue of such Option or Convertible Security (or upon the occurrence of a record date with respect thereto) shall be readjusted to such Applicable Conversion Price as would have obtained had such revised terms been in effect upon the original date of issuance of such Option or Convertible Security. Notwithstanding the foregoing, no readjustment pursuant to this clause (b) shall have the effect of increasing the Applicable Conversion Price to an amount which exceeds the lower of (i) the Applicable Conversion Price in effect immediately prior to the original adjustment made as a result of the issuance of such Option or Convertible Security, or (ii) the adjusted Applicable Conversion Price that would have resulted from any issuances of Additional Shares of Common Stock (other than deemed issuances of Additional Shares of Common Stock as a result of the issuance of such Option or Convertible Security) between the original adjustment date and such readjustment date.

(c) If the terms of any Option or Convertible Security (excluding Options or Convertible Securities which are themselves Exempted Securities), the issuance of which did not result in an adjustment to the Applicable Conversion Price pursuant to the terms of Section 4.4.4 (either because the consideration per share (determined pursuant to Section 4.4.5) of the Additional Shares of Common Stock subject thereto was equal to or greater than the Applicable Conversion Price then in effect, or because such Option or Convertible Security was issued before the Original Issue Date), are revised after the Original Issue Date as a result of an amendment to such terms or any other adjustment pursuant to the provisions of such Option or Convertible Security (but excluding automatic adjustments to such terms pursuant to anti-dilution or similar provisions of such Option or Convertible Security) to provide for either (1) any increase in the number of shares of Common Stock issuable upon the exercise, conversion or exchange of any such Option or Convertible Security or (2) any decrease in the consideration payable to the Corporation upon such exercise, conversion or exchange, then such Option or Convertible Security, as so amended or adjusted, and the Additional Shares of Common Stock subject thereto (determined in the manner provided in Section 4.4.3(a)) shall be deemed to have been issued effective upon such increase or decrease becoming effective.

(d) Upon the expiration or termination of any unexercised Option or unconverted or unexchanged Convertible Security (or portion thereof) which resulted (either upon its original issuance or upon a revision of its terms) in an adjustment to the Applicable Conversion Price pursuant to the terms of Section 4.4.4, the Applicable Conversion Price shall be readjusted to such Applicable Conversion Price as would have obtained had such Option or Convertible Security (or portion thereof) never been issued.

(e) If the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any Option or Convertible Security, or the consideration payable to the Corporation upon such exercise, conversion and/or exchange, is calculable at the time such Option or Convertible Security is issued or amended but is subject to adjustment based upon subsequent events, any adjustment to the Applicable Conversion Price provided for in this Section 4.4.3 shall be effected at the time of such issuance or amendment based on such number of shares or amount of consideration without regard to any provisions for subsequent adjustments (and any subsequent adjustments shall be treated as provided in clauses (b) and (c) of this Section 4.4.3**)**. If the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any Option or Convertible Security, or the consideration payable to the Corporation upon such exercise, conversion and/or exchange, cannot be calculated at all at the time such Option or Convertible Security is issued or amended, any adjustment to the Applicable Conversion Price that would result under the terms of this Section 4.4.3 at the time of such issuance or amendment shall instead be effected at the time such number of shares and/or amount of consideration is first calculable (even if subject to subsequent adjustments), assuming for purposes of calculating such adjustment to the Applicable Conversion Price that such issuance or amendment took place at the time such calculation can first be made.

4.4.4 Adjustment of Applicable Conversion Price Upon Issuance of Additional Shares of Common Stock. In the event the Corporation shall at any time after the Filing Date issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued pursuant to Section 4.4.3), without consideration or for a consideration per share less than the Applicable Conversion Price in effect immediately prior to such issue, then the Applicable Conversion Price shall be reduced, concurrently with such issue, to a price (calculated to the nearest one-hundredth of a cent) determined in accordance with the following formula:

New Conversion Price = ((A * Existing Conversion Price) + B) ÷ (A + C).

For purposes of the foregoing formula, the following definitions shall apply:

(a) "A" shall mean the number of shares of Common Stock outstanding immediately prior to such issue of Additional Shares of Common Stock (treating for this purpose as outstanding (i) all shares of vested restricted stock that were issued pursuant to a stock option or stock incentive plan (which stock option or stock incentive plan was approved by the Board) prior to the issuance of Additional Shares of Common Stock resulting in the adjustment to the Existing Conversion Price, (ii) all shares of Common Stock issuable upon exercise of outstanding vested and unexercised Options that were issued pursuant to a stock option or stock incentive plan (which stock option or stock incentive plan was approved by the Board) prior to the issuance of Additional Shares of Common Stock resulting in the adjustment to the Existing Conversion Price, but only to the extent such vested and unexercised Options have an exercise price that is less than the per share consideration received in connection with the issuance of Additional Shares of Common Stock resulting in an adjustment pursuant to this Section 4.4.4, and (iii) without duplication and subject to clauses (i) and (ii), all other shares of Common Stock outstanding immediately prior to such issue or upon conversion or exchange of Convertible Securities (including the Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred Stock) outstanding immediately prior to such issue);

(b) "B" shall mean the consideration, if any, received by the Corporation for such issuance of Additional Shares of Common Stock resulting in the adjustment to the Existing Conversion Price;

(c) "C" shall mean the number of such Additional Shares of Common Stock issued or deemed issued in such transaction;

(d) "Existing Conversion Price" shall mean the Applicable Conversion Price in effect immediately prior to such issue of Additional Shares of Common Stock; and

(e) "New Conversion Price" shall mean the Applicable Conversion Price in effect immediately after such issue of Additional Shares of Common Stock.

4.4.5 Determination of Consideration. For purposes of this Section 4.4, the consideration received by the Corporation for the issue of any Additional Shares of Common Stock shall be computed as follows:

(a) Cash and Property. Such consideration shall:

(i) insofar as it consists of cash, be computed at the aggregate amount of cash received by the Corporation, excluding amounts paid or payable for accrued interest;

(ii) insofar as it consists of property other than cash, be computed at the fair market value thereof at the time of such issue, as determined in good faith by the Board; and

(iii) in the event Additional Shares of Common Stock are issued together with other shares or securities or other assets of the Corporation for consideration which covers both, be the proportion of such consideration so received, computed as provided in clauses (i) and (ii) above, as determined in good faith by the Board.

(b) Options and Convertible Securities. The consideration per share received by the Corporation for Additional Shares of Common Stock deemed to have been issued pursuant to Section 4.4.3, relating to Options and Convertible Securities, shall be determined by dividing:

(i) the total amount, if any, received or receivable by the Corporation as consideration for the issuance of such Options or Convertible Securities, plus the minimum aggregate amount of additional consideration (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such consideration) payable to the Corporation upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities, by

(ii) the maximum number of shares of Common Stock (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities.

4.4.6 Multiple Closing Dates. In the event the Corporation shall issue on more than one date Additional Shares of Common Stock that are a part of one transaction or a series of related transactions and that would result in an adjustment to the Applicable Conversion Price pursuant to the terms of Section 4.4.4 then, upon the final such issuance, the Applicable Conversion Price shall be readjusted to give effect to all such issuances as if they occurred on the date of the first such issuance (and without giving effect to any additional adjustments as a result of any such subsequent issuances within such period).

4.5 Adjustment for Stock Splits and Combinations. If the Corporation shall at any time or from time to time after the Filing Date effect a subdivision of the outstanding Common Stock, the Applicable Conversion Price in effect immediately before that subdivision shall be proportionately decreased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be increased in proportion to such increase in the aggregate number of shares of Common Stock outstanding. If the Corporation shall at any time or from time to time after the Filing Date combine the outstanding shares of Common Stock, the Applicable Conversion Price in effect immediately before the combination shall be proportionately increased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be decreased in proportion to such decrease in the aggregate number of shares of Common Stock outstanding. Any adjustment under this subsection shall become effective at the close of business on the date the subdivision or combination becomes effective.

4.6 Adjustment for Certain Dividends and Distributions. In the event the Corporation at any time or from time to time after the Filing Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable on the Common Stock in additional shares of Common Stock, then and in each such event the Applicable Conversion Price in effect immediately before such event shall be decreased as of the time of such issuance or, in the event such a record date shall have been fixed, as of the close of business on such record date, by multiplying the Applicable Conversion Price then in effect by a fraction:

(1) the numerator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date, and

(2) the denominator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date plus the number of shares of Common Stock issuable in payment of such dividend or distribution.

Notwithstanding the foregoing, (a) if such record date shall have been fixed and such dividend is not fully paid or if such distribution is not fully made on the date fixed therefor, the Applicable Conversion Price shall be recomputed accordingly as of the close of business on such record date and thereafter the Applicable Conversion Price shall be adjusted pursuant to this subsection as of the time of actual payment of such dividends or distributions; and (b) no such adjustment shall be made if the holders of Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred Stock, as applicable, simultaneously receive a dividend or other distribution of shares of Common Stock in a number equal to the number of shares of Common Stock as they would have received if all outstanding shares of Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred Stock, as applicable, had been converted into Common Stock pursuant to Section 4.1 on the date of such event.

4.7 Adjustments for Other Dividends and Distributions. In the event the Corporation at any time or from time to time after the Filing Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable in securities of the Corporation (other than a distribution of shares of Common Stock in respect of outstanding shares of Common Stock) or in other property and the provisions of Section 1 do not apply to such dividend or distribution, then and in each such event the holders of Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred Stock shall receive, simultaneously with the distribution to the holders of Common Stock, a dividend or other distribution of such securities or other property in an amount equal to the amount of such securities or other property as they would have received if all outstanding shares of Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred Stock had been converted into Common Stock pursuant to Section 4.1 on the date of such event.

4.8 Adjustment for Merger or Reorganization, etc. Subject to the provisions of Section 2, including Section 2.4, if there shall occur any reorganization, recapitalization, reclassification, consolidation or merger involving the Corporation in which the Common Stock (but not the Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred Stock, as applicable) is converted into or exchanged for securities, cash or other property (other than a transaction covered by Sections 4.4, 4.6 or 4.7), then, following any such reorganization, recapitalization, reclassification, consolidation or merger, each share of Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred Stock, as applicable, shall thereafter be convertible in lieu of the Common Stock into which it was convertible prior to such event into the kind and amount of securities, cash or other property which a holder of the number of shares of Common Stock of the Corporation issuable upon conversion of one share of Series C Preferred Stock, Series B Preferred Stock or Existing Series A Preferred Stock, as applicable, immediately prior to such reorganization, recapitalization, reclassification, consolidation or merger would have been entitled to receive pursuant to such transaction; and, in such case, appropriate adjustment (as determined in good faith by the Board) shall be made in the application of the provisions in this Section 4 with respect to the rights and interests thereafter of the holders of the Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred Stock, as applicable, to the end that the provisions set forth in this Section 4 (including provisions with respect to changes in and other adjustments of the Applicable Conversion Price) shall thereafter be applicable, as nearly as reasonably may be, in relation to any securities or other property thereafter deliverable upon the conversion of the Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred

Stock, as applicable. Each holder of Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred Stock hereby waives the right, if any, of any such holder to seek an appraisal of his, her or its shares of Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred Stock pursuant to Section 262 of the DGCL.

4.9 Certificate as to Adjustments. Upon the occurrence of each adjustment or readjustment of the Applicable Conversion Price pursuant to this Section 4, the Corporation at its expense shall, as promptly as reasonably practicable thereafter, compute such adjustment or readjustment in accordance with the terms hereof and furnish to each holder of Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred Stock a certificate setting forth such adjustment or readjustment (including the kind and amount of securities, cash or other property into which the Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred Stock is convertible) and showing in detail the facts upon which such adjustment or readjustment is based. The Corporation shall, as promptly as reasonably practicable after the written request at any time of any holder of Series C Preferred Stock, Series B Preferred Stock or Existing Series A Preferred Stock (but in any event not later than 10 days thereafter), furnish or cause to be furnished to such holder a certificate setting forth (i) the Applicable Conversion Price then in effect, and (ii) the number of shares of Common Stock and the amount, if any, of other securities, cash or property which then would be received upon the conversion of Series C Preferred Stock, Series B Preferred Stock or Existing Series A Preferred Stock, as applicable.

4.10 Notice of Record Date. In the event the Corporation shall take a record of the holders of its Common Stock (or other capital stock or securities at the time issuable upon conversion of the Series C Preferred Stock, Series B Preferred Stock or Existing Series A Preferred Stock, as applicable) for the purpose of entitling or enabling them to receive any dividend or other distribution, or to receive any right to subscribe for or purchase any shares of capital stock of any class or any other securities, or to receive any other security; or of any capital reorganization of the Corporation, any reclassification of the Common Stock of the Corporation, or any Deemed Liquidation Event; or of the voluntary or involuntary dissolution, liquidation or winding-up of the Corporation, then, and in each such case, the Corporation will send or cause to be sent to the holders of the Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred Stock, as applicable, a notice specifying, as the case may be, (i) the record date for such dividend, distribution or right, and the amount and character of such dividend, distribution or right, or (ii) the effective date on which such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up is proposed to take place, and the time, if any is to be fixed, as of which the holders of record of Common Stock (or such other capital stock or securities at the time issuable upon the conversion of the Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred Stock, as applicable) shall be entitled to exchange their shares of Common Stock (or such other capital stock or securities) for securities or other property deliverable upon such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up, and the amount per share and character of such exchange applicable to the Series C Preferred Stock, Series B Preferred Stock, Existing Series A Preferred Stock and the Common Stock. Such notice shall be sent as promptly as practicable prior to the record date or effective date for the event specified in such notice.

5. Mandatory Conversion.

5.1 Trigger Events.

5.1.1 Immediately prior to the closing of the sale of shares of Common Stock to the public on the New York Stock Exchange, the NASDAQ Global Market or other internationally recognized stock exchange in which the price per share paid in the initial public offering of the Corporation of the Common Stock is not less than three times the Series C Original Issue Price, in a firm-commitment underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, resulting in at least $50 million of proceeds, net of the underwriting discount and commissions, to the Corporation and/or the selling stockholders (i) each outstanding share of Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred Stock shall automatically be converted into the number of shares of Common Stock equal to the sum of (I) the number of shares of Common Stock into which such share of Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred Stock, as applicable, is convertible pursuant to Section 4.1 plus (II) the number of shares of Common Stock equal to the quotient obtained by dividing (x) an amount per share equal to the dividends payable on such Series C Preferred Stock, Series B Preferred Stock or Existing Series A Preferred Stock, as applicable, that have been declared but remain unpaid, by (y) the gross per share initial public offering price (before deducting the underwriting discount and commissions) of the Common Stock).

5.1.2 Upon the date and time, or the occurrence of an event, specified by vote or written consent of the holders of at least a majority of the then outstanding shares of Series C Preferred Stock, each outstanding share of Series C Preferred Stock shall automatically be converted into the number of shares of Common Stock equal to the number of shares of Common Stock into which such share of Series C Preferred Stock is convertible pursuant to Section 4.1.

5.1.3 Upon the date and time, or the occurrence of an event, specified by vote or written consent of the holders of at least a majority of the then outstanding shares of Series B Preferred Stock, each outstanding share of Series B Preferred Stock shall automatically be converted into the number of shares of Common Stock equal to the number of shares of Common Stock into which such share of Series B Preferred Stock is convertible pursuant to Section 4.1.

5.1.4 Subject to Section 5.1.4, upon the date and time, or the occurrence of an event, specified by vote or written consent of the holders of at least a majority of the then outstanding shares of Existing Series A Preferred Stock, voting together as a class, each outstanding share of Existing Series A Preferred Stock shall automatically be converted into the number of shares of Common Stock equal to the number of shares of Common Stock into which such share of Existing Series A Preferred Stock is convertible pursuant to Section 4.1.

5.1.5 Upon the date and time, or the occurrence of an event, specified by vote or written consent of the holders of (i) at least a majority of the then outstanding shares of Series C Preferred Stock, voting separately as a class, and (ii) the holders of at least a majority of the then outstanding shares of Series B Preferred Stock, voting separately as a class, each outstanding share of Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred Stock shall automatically be converted into the number of shares of Common Stock equal to the number of shares of Common Stock into which such share of Series C Preferred Stock, Series B Preferred Stock or Existing Series A Preferred Stock, as applicable, is convertible pursuant to Section 4.1 (the

time of such closing or the date and time specified or the time of the event specified in such vote or written consent set forth in this Section 5.1 is referred to herein as the "Mandatory Conversion Time").

5.2 Procedural Requirements. All holders of record of shares of Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred Stock shall be sent written notice of the Mandatory Conversion Time and the place designated for mandatory conversion of all such shares of Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred Stock pursuant to this Section 5. Such notice need not be sent in advance of the occurrence of the Mandatory Conversion Time. Promptly following receipt of such notice, each holder of shares of Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred Stock, as applicable, shall surrender his, her or its certificate or certificates for all such shares (or, if such holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate which agreement shall not require the posting of a bond) to the Corporation at the place designated in such notice. If so required by the Corporation, certificates surrendered for conversion shall be endorsed or accompanied by written instrument or instruments of transfer, in form satisfactory to the Corporation, duly executed by the registered holder or by his, her or its attorney duly authorized in writing. All rights with respect to the Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred Stock, as applicable, converted pursuant to Section 5.1, including the rights, if any, to receive notices and vote (other than as a holder of Common Stock), will terminate at the Mandatory Conversion Time (notwithstanding the failure of the holder or holders thereof to surrender the certificates at or prior to such time), except only the rights of the holders thereof, upon surrender of their certificate or certificates (or lost certificate affidavit and agreement) therefor, to receive the items provided for in the next sentence of this Section 5.2. As soon as practicable after the Mandatory Conversion Time and the surrender of the certificate or certificates (or lost certificate affidavit and agreement) for Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred Stock, as applicable, the Corporation shall issue and deliver to such holder, or to his, her or its nominees, a certificate or certificates for the number of full shares of Common Stock issuable on such conversion in accordance with the provisions hereof, together with cash as provided in Section 4.2 in lieu of any fraction of a share of Common Stock otherwise issuable upon such conversion. Such converted Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred Stock, as applicable, shall be retired and cancelled and may not be reissued as shares of such series or any other class or series, and the Corporation may thereafter take such appropriate action (without the need for stockholder action) as may be necessary to reduce the authorized number of shares of Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred Stock, as applicable, accordingly.

6. Mandatory Redemption. The Preferred Stock is not mandatorily redeemable by the Corporation or the holder.

7. Redeemed or Otherwise Acquired Shares. Any shares of Preferred Stock that are redeemed or otherwise acquired by the Corporation or any of its subsidiaries shall be automatically and immediately cancelled and retired and shall not be reissued, sold or transferred. Neither the

Corporation nor any of its subsidiaries may exercise any voting or other rights granted to the holders of Preferred Stock following the redemption or any other acquisition of shares of Preferred Stock.

8. Waiver. Any of the rights, powers, preferences and other terms of the (a) Series A Preferred Stock set forth herein may be waived on behalf of all holders of Series A Preferred Stock by the affirmative written consent or vote of the holders of at least a majority of the shares of Series A Preferred Stock then outstanding, and such waiver shall be binding on all holders of Series A Preferred Stock whether or not such holders of Series A Preferred Stock consent, (b) Series A-1 Preferred Stock set forth herein may be waived on behalf of all holders of Series A-1 Preferred Stock by the affirmative written consent or vote of the holders of at least a majority of the shares of Series A-1 Preferred Stock then outstanding, and such waiver shall be binding on all holders of Series A-1 Preferred Stock whether or not such holders of Series A-1 Preferred Stock consent, (c) Series B Preferred Stock set forth herein may be waived on behalf of all holders of Series B Preferred Stock by the affirmative written consent or vote of the holders of at least a majority of the shares of Series B Preferred Stock then outstanding, and such waiver shall be binding on all holders of Series B Preferred Stock whether or not such holders of Series B Preferred Stock consent, (d) Series C Preferred Stock set forth herein may be waived on behalf of all holders of Series C Preferred Stock by the affirmative written consent or vote of the holders of at least a majority of the shares of Series C Preferred Stock then outstanding, provided that, such waiver shall require the holders of at least 70% of the shares of Series C Preferred Stock then outstanding to the extent a change in the rights, powers, preferences and other terms being waived required consent of holders of at least 70% of the shares of Series C Preferred Stock then outstanding, and such waiver shall be binding on all holders of Series C Preferred Stock whether or not such holders of Series C Preferred Stock consent, and (e) Preferred Stock set forth herein that are applicable in the same manner to each series of Preferred Stock may be waived on behalf of all holders of Preferred Stock by the affirmative written consent or vote of (i) the holders of at least a majority of the shares of Series B Preferred Stock then outstanding and (ii) the holders of at least a majority of the shares of Series C Preferred Stock then outstanding, and such waiver shall be binding on all holders of Preferred Stock whether or not such holders of Preferred Stock consent.

9. Preemptive Rights. No stockholder of the Corporation shall have a right to purchase shares of capital stock of the Corporation sold or issued by the Corporation except to the extent that such a right may from time to time be set forth in a written agreement between the Corporation and such stockholder, including a stockholders agreement among the Corporation and the stockholders identified therein.

10. Notices. Any notice required or permitted by the provisions of this Article IV to be given to a holder of shares of Preferred Stock shall be mailed, postage prepaid, to the post office address last shown on the records of the Corporation, or given by electronic communication in compliance with the provisions of the DGCL, and shall be deemed sent upon such mailing or electronic transmission.

ARTICLE V

Subject to any additional vote required by the Certificate of Incorporation or Bylaws, in furtherance and not in limitation of the powers conferred by the DGCL, the Board is expressly authorized to make, repeal, alter, amend and rescind any or all of the Bylaws of the Corporation.

ARTICLE VI

Subject to any additional vote required by the Certificate of Incorporation, the number of directors of the Corporation shall be determined in the manner set forth in the Bylaws of the Corporation.

ARTICLE VII

Elections of directors need not be by written ballot unless the Bylaws of the Corporation shall so provide.

ARTICLE VIII

Meetings of stockholders may be held within or outside the State of Delaware, as the Bylaws of the Corporation may provide. The books of the Corporation may be kept outside the State of Delaware at such place or places as may be designated from time to time by the Board or in the Bylaws of the Corporation.

ARTICLE IX

To the fullest extent permitted by law, a director of the Corporation shall not be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director. If the DGCL or any other applicable law is amended to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the Corporation shall be eliminated or limited to the fullest extent permitted by the DGCL as so amended or such other applicable laws.

Any amendment, repeal or modification of the foregoing provisions of this Article IX, or the adoption of any provision of the Certificate of Incorporation inconsistent with this Article IX, by the stockholders of the Corporation shall not adversely affect any right or protection of a director of the Corporation existing at the time of, or increase the liability of any director of the Corporation with respect to any acts or omissions of such director occurring prior to, such amendment, repeal, modification or adoption.

ARTICLE X

The following indemnification provisions shall apply to the persons enumerated below.

1. Right to Indemnification of Directors and Officers. The Corporation shall indemnify and hold harmless, to the fullest extent permitted by applicable law as it presently exists or may hereafter be amended, any person (an "Indemnified Person") who was or is made or is threatened to be made a party or is otherwise involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative (a "Proceeding"), by reason of the fact that such person, or a person for whom such person is the legal representative, is or was a director or officer of the Corporation or, while a director or officer of the Corporation, is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation or of a partnership, joint venture, limited liability company, trust, enterprise or nonprofit entity, including service with respect to employee benefit plans (collectively, "Another Enterprise"), against all liability and loss suffered and expenses (including attorneys' fees) reasonably incurred by such Indemnified Person in such Proceeding. Notwithstanding the preceding sentence, except as otherwise provided in Section 3 of this Article X, the Corporation shall be required to indemnify an Indemnified Person in connection with a Proceeding (or part thereof) commenced by such Indemnified Person only if the commencement of such Proceeding (or part thereof) by the Indemnified Person was authorized in advance by the Board.

2. Advancement of Expenses.

(a) The Corporation shall pay the expenses (including attorneys' fees) incurred by an Indemnified Person who is or was a non-employee director of the Corporation or while a non-employee director of the Corporation, is or was serving at the request of the Corporation as a director of Another Enterprise in defending any Proceeding in advance of its final disposition; provided, however, that such payment of expenses in advance of the final disposition of the Proceeding shall be made only upon receipt of an undertaking by such person to repay all amounts advanced if it should ultimately be determined that such person is not entitled to be indemnified under this Article X or otherwise.

(b) The Corporation may (but shall not be required to) pay the expenses (including attorneys' fees) incurred by an Indemnified Person who does not meet the criteria set forth in clause (a) above in defending any Proceeding in advance of its final disposition; provided, however, that such payment of expenses in advance of the final disposition of the Proceeding shall be made only upon receipt of an undertaking by such person to repay all amounts advanced if it should ultimately be determined that such person is not entitled to be indemnified under this Article X or otherwise; provided, further, that the ultimate determination of entitlement to advance to Indemnified Persons pursuant to this Section 2(b) shall be made in such manner as is determined by the Board in its sole discretion.

3. Claims by Directors and Officers. If a claim for indemnification or advancement of expenses under this Article X is not paid in full within 30 days after a written claim therefor by the person entitled to indemnification or advancement, as applicable, has been received by the Corporation, such person may file suit to recover the unpaid amount of such claim and, if successful in whole or in part, shall be entitled to be paid the expense of prosecuting such claim. In any such action the Corporation shall have the burden of proving that such person is not entitled to the requested indemnification or advancement of expenses under applicable law.

4. Indemnification of Employees and Agents. The Corporation may indemnify and advance expenses to any person who was or is made or is threatened to be made or is otherwise involved in any Proceeding by reason of the fact that such person, or a person for whom such person is the legal representative, is or was an employee or agent of the Corporation or, while an employee or agent of the Corporation, is or was serving at the request of the Corporation as a director, officer, employee or agent of Another Enterprise, against all liability and loss suffered and expenses (including attorneys' fees) reasonably incurred by such person in connection with such Proceeding. The ultimate determination of entitlement to indemnification of persons who are non-director or officer employees or agents shall be made in such manner as is determined by the Board in its sole discretion.

5. Advancement of Expenses of Employees and Agents. The Corporation may (but shall not be required to) pay the expenses (including attorneys' fees) incurred by an employee or agent in defending any Proceeding in advance of its final disposition on such terms and conditions as may be determined by the Board; provided, however, that such payment of expenses in advance of the final disposition of the Proceeding shall be made only upon receipt of an undertaking by the employee or agent to repay all amounts advanced if it should ultimately be determined that the employee or agent is not entitled to be indemnified under this Article X or otherwise; provided, further, that the ultimate determination of entitlement to advance to pursuant to this Section 5 shall be made in such manner as is determined by the Board in its sole discretion.

6. Non-Exclusivity of Rights. The rights conferred on any person by this Article X shall not be exclusive of any other rights which such person may have or hereafter acquire under any statute, provision of this Certificate of Incorporation or the Bylaws of the Corporation, agreement, vote of stockholders or disinterested directors or otherwise.

7. Insurance. The Board may, to the full extent permitted by applicable law as it presently exists, or may hereafter be amended from time to time, authorize an appropriate officer or officers to purchase and maintain at the Corporation's expense insurance: (a) to indemnify the Corporation for any obligation which it incurs as a result of the indemnification of directors, officers, agents and employees under the provisions of this Article X; and (b) to indemnify or insure directors, officers, agents and employees against liability in instances in which they may not otherwise be indemnified by the Corporation under the provisions of this Article X.

8. Amendment or Repeal. The rights to indemnification and advancement of expenses conferred upon any current or former director or officer of the Corporation pursuant to this Article X (whether by reason of the fact that such person is or was a director or officer of the Corporation, or while serving as a director or officer of the Corporation, is or was serving at the request of the Corporation as a director, officer, employee or agent of Another Enterprise) shall be contract rights, shall vest when such person becomes a director or officer of the Corporation, and shall continue as vested contract rights even if such person ceases to be a director or officer of the Corporation. Any amendment, repeal or modification of, or adoption of any provision inconsistent with, this Article X (or any provision hereof) shall not adversely affect any right to indemnification or advancement of expenses granted to any person pursuant hereto with respect to any act or omission of such person occurring prior to the time of such amendment, repeal, modification or adoption (regardless of whether the Proceeding relating to such acts or omissions, or any proceeding relating to such person's

rights to indemnification or to advancement of expenses, is commenced before or after the time of such amendment, repeal, modification or adoption), and any such amendment, repeal, modification or adoption that would adversely affect such person's rights to indemnification or advancement of expenses hereunder shall be ineffective as to such person, except with respect to any threatened, pending or completed Proceeding that relates to or arises from (and only to the extent such Proceeding relates to or arises from) any act or omission of such person occurring after the effective time of such amendment, repeal, modification or adoption. The rights provided hereunder shall inure to the benefit of any Indemnified Person and such person's heirs, executors and administrators.

ARTICLE XI

In recognition that each Principal Stockholder (as defined below) and their respective Representatives (as defined below) currently have, and may in the future have or may consider acquiring, investments in corporations, limited liability companies, partnerships, associations, joint-stock corporations, trusts or other forms of business entity with respect to which each Principal Stockholder or their respective Representatives may serve as an advisor, a director or in some other capacity, and in recognition that each Principal Stockholder and their respective Representatives may have myriad duties to various investors and partners, and in anticipation that the Corporation and its subsidiaries, on the one hand and each of the Principal Stockholders, on the other hand, may engage in the same or similar activities or lines of business and have an interest in the same areas of corporate opportunities, and in recognition of the benefits to be derived by the Corporation hereunder and in recognition of the difficulties which may confront any advisor who desires and endeavors fully to satisfy such advisor's duties in determining the full scope of such duties in any particular situation, the provisions of this Article XI are set forth to regulate, define and guide the conduct of certain affairs of the Corporation as they may involve such Principal Stockholder. Except as a Principal Stockholder may otherwise agree in writing after the date hereof:

(a) Such Principal Stockholder and its respective Representatives shall have the right: (A) to directly or indirectly engage in any business activities related to the research and development of medical devices or lines of business that are the same as or similar to those pursued by, or competitive with, the Corporation and its subsidiaries, (B) to directly or indirectly do business with any client or customer of the Corporation and its subsidiaries, (C) to take any other action that such Principal Stockholder believes in good faith is necessary to or appropriate to fulfill its obligations as described in the first sentence of this Article XI, and (D) not to present potential transactions, matters or business opportunities to the Corporation or any of its subsidiaries, and to pursue, directly or indirectly, any such opportunity for itself, and to direct any such opportunity to another person.

(b) Such Principal Stockholder and its Representatives shall have no duty (contractual or otherwise) to communicate or present any corporate opportunities to the Corporation or any of its stockholders, subsidiaries or affiliates or to refrain from any actions specified in this Article XI, and the Corporation, on its own behalf and on behalf of its stockholders, subsidiaries and affiliates, hereby renounces and waives any right to require such Principal Stockholder or any of its Representatives to act in a manner inconsistent with the provisions of this Article XI.

(c) None of the Principal Stockholders, nor any of their respective Representatives, shall (a) be liable to the Corporation or any of its stockholders, subsidiaries or affiliates for breach of any duty (contractual or otherwise) by reason of any activities or omissions of the types referred to in this Article XI or of any such person's participation therein, or (b) have any duty to communicate or present any activities or omissions of the types referred to in this Article XI to the Corporation or its stockholders, subsidiaries or affiliates. The Principal Stockholders and their respective Representatives shall have the right to hold any of the activities or omissions of the types referred to in this Article XI for its own account, or the account of another person, or to recommend, sell, assign or otherwise transfer such activity or omission to persons other than the Corporation or any stockholder, subsidiary or affiliate of the Corporation. The Corporation acknowledges that this Article XI renounces specified business opportunities as contemplated by Section 122(17) of the DGCL. To the fullest extent permitted by law, the Corporation hereby waives any claim against each Principal Stockholder and its Representatives, and agrees to indemnify each Principal Stockholder and its Representatives against any claim, that is based on fiduciary duties, the corporate opportunity doctrine or any other legal theory which could limit any Principal Stockholder or its Representatives from pursuing or engaging in transactions contemplated by this Article XI.

As used herein, "Principal Stockholder" means any of the Warburg Pincus Entities, the Vertical Group Entities, the Norwest Entities or the Janus Entities.

As used herein, "Representatives" means the officers, directors, agents, members, partners, employees or affiliates of such Principal Stockholder.

As used herein, "Norwest Entities" shall mean (i) Norwest Venture Partners XIII, L.P. (or an affiliate of such entity) or its respective subsidiaries (collectively, "Norwest Group), (ii) any investment fund, vehicle or account which is managed by Norwest Group or in respect of which Norwest Group has investment discretion (each, a "Norwest Group Fund or Account") or (iii) an affiliate of Norwest Group or a Norwest Group Fund or Account.

As used herein, "Janus Entities" shall mean Janus Henderson Global Life Sciences Fund and Janus Capital Funds PLC on Behalf of its Series Janus Global Life Sciences Fund (or an affiliate of one or more of such entities) or their respective subsidiaries (collectively, "Janus Group"), (ii) any investment fund, vehicle or account which is managed by Janus Group or in respect of which Janus Group has investment discretion (each, a "Janus Group Fund or Account") or (iii) an affiliate of Janus Group or a Janus Group Fund or Account.

As used herein, "Vertical Group Entities" shall mean (i) The Vertical Group, L.P. (or an affiliate of one or more of such entities) or their respective subsidiaries (collectively, "Vertical Group"), (ii) any investment fund, vehicle or account which is managed by Vertical Group or in respect of which Vertical Group has investment discretion, including, but not limited to, Vertical Fund I, L.P. and Vertical Fund II, L.P. (each, a "Vertical Group Fund or Account") or (iii) an affiliate of Vertical Group or a Vertical Group Fund or Account.

As used herein, "Warburg Pincus Entities" shall mean (i) Warburg Pincus LLC and/or Warburg Pincus & Co. (or an affiliate of one or more of such entities) or their respective

subsidiaries (collectively, "Warburg Pincus"), (ii) any investment fund, vehicle or account which is managed by Warburg Pincus or in respect of which Warburg Pincus has investment discretion, including, but not limited to, Warburg Pincus Private Equity X, L.P. and Warburg Pincus X Partners, L.P. (each, a "Warburg Pincus Fund or Account") or (iii) an affiliate of Warburg Pincus or a Warburg Pincus Fund or Account.

ARTICLE XII

The Corporation hereby elects to opt out of Section 203 of the DGCL until the Warburg Pincus Entities or the Vertical Group Entities, individually or collectively, cease to be the beneficial owner of shares representing at least 15% of the total voting power of the Voting Stock (as defined below), at which date Section 203 of the DGCL shall apply prospectively to the Corporation (such that any person or entity who or that, as of such date, would be an interested stockholder under Section 203 of the DGCL shall not be deemed to be an interested stockholder until such later time as such person or entity acquires one or more additional shares of Common Stock).

As used herein, "Voting Stock" means the shares of Common Stock and of any other class or series of voting stock (including the Series C Preferred Stock, Series B Preferred Stock and Existing Series A Preferred Stock).

ARTICLE XIII

Unless the Corporation consents in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall be the sole and exclusive forum for (i) any derivative action or proceeding brought on behalf of the Corporation, (ii) any action asserting a claim of breach of a fiduciary duty owed by any director, officer or other employee of the Corporation to the Corporation or the Corporation's stockholders, (iii) any action asserting a claim arising pursuant to any provision of the DGCL, or (iv) any action asserting a claim governed by the internal affairs doctrine. Any person or entity purchasing or otherwise acquiring any interest in shares of capital stock of the Corporation shall be deemed to have notice of and consented to the provisions of this Article XIII.

* * *

IN WITNESS WHEREOF, this Certificate of Incorporation has been executed by a duly authorized officer of this Corporation on this 6th day of July, 2017.

By	/s/ Erica J. Rogers
Name:	Erica J. Rogers
Title:	President and Chief Executive Officer

BYLAWS OF

SILK ROAD MEDICAL, INC.

Adopted March 21, 2007

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BYLAWS

ARTICLE I — MEETINGS OF STOCKHOLDERS

1.1 ***Place of Meetings***. Meetings of stockholders of Silk Road Medical, Inc. (the "**Company**") shall be held at any place, within or outside the State of Delaware, determined by the Company's board of directors (the "**Board**"). The Board may, in its sole discretion, determine that a meeting of stockholders shall not be held at any place, but may instead be held solely by means of remote communication as authorized by Section 211(a)(2) of the Delaware General Corporation Law (the "**DGCL**"). In the absence of any such designation or determination, stockholders' meetings shall be held at the Company's principal executive office.

1.2 ***Annual Meeting***. An annual meeting of stockholders shall be held for the election of directors at such date and time as may be designated by resolution of the Board from time to time. Any other proper business may be transacted at the annual meeting. The Company shall not be required to hold an annual meeting of stockholders, *provided* that (i) the stockholders are permitted to act by written consent under the Company's certificate of incorporation and these bylaws, (ii) the stockholders take action by written consent to elect directors and (iii) the stockholders unanimously consent to such action or, if such consent is less than unanimous, all of the directorships to which directors could be elected at an annual meeting held at the effective time of such action are vacant and are filled by such action.

1.3 ***Special Meeting***. A special meeting of the stockholders may be called at any time by the Board, Chairperson of the Board, Chief Executive Officer or President (in the absence of a Chief Executive Officer) or by one or more stockholders holding shares in the aggregate entitled to cast not less than 10% of the votes at that meeting.

If any person(s) other than the Board calls a special meeting, the request shall:

(i) be in writing;

(ii) specify the time of such meeting and the general nature of the business proposed to be transacted; and

(iii) be delivered personally or sent by registered mail or by facsimile transmission to the Chairperson of the Board, the Chief Executive Officer, the President (in the absence of a Chief Executive Officer) or the Secretary of the Company.

The officer(s) receiving the request shall cause notice to be promptly given to the stockholders entitled to vote at such meeting, in accordance with these bylaws, that a meeting will be held at the time requested by the person or persons calling the meeting. No business may be transacted at such special meeting other than the business specified in such notice to stockholders. Nothing contained in this paragraph of this **section 1.3** shall be construed as limiting, fixing, or affecting the time when a meeting of stockholders called by action of the Board may be held.

1.4 ***Notice of Stockholders' Meetings***. Whenever stockholders are required or permitted to take any action at a meeting, a written notice of the meeting shall be given which shall state the place, if any, date and hour of the meeting, the means of remote communication, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such meeting, and, in the case of a special meeting, the purpose or purposes for which the meeting is called. Except as otherwise provided in the DGCL, the certificate of incorporation or these bylaws, the written notice of any meeting of stockholders shall be given not less than 10 nor more than 60 days before the date of the meeting to each stockholder entitled to vote at such meeting.

1.5 ***Quorum***. Except as otherwise provided by law, the certificate of incorporation or these bylaws, at each meeting of stockholders the presence in person or by proxy of the holders of shares of stock having a majority of the votes which could be cast by the holders of all outstanding shares of stock entitled to vote at the meeting shall be necessary and sufficient to constitute a quorum. If, however, such quorum is not present or represented at any meeting of the stockholders, then either (i) the chairperson of the meeting, or (ii) the stockholders entitled to vote at the meeting, present in person or represented by proxy, shall have the power to adjourn the meeting from time to time, in the manner provided in **section 1.6**, until a quorum is present or represented.

1.6 ***Adjourned Meeting; Notice***. Any meeting of stockholders, annual or special, may adjourn from time to time to reconvene at the same or some other place, and notice need not be given of the adjourned meeting if the time, place, if any, thereof, and the means of remote communications, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such adjourned meeting are announced at the meeting at which the adjournment is taken. At the adjourned meeting, the Company may transact any business which might have been transacted at the original meeting. If the adjournment is for more than 30 days, or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting.

1.7 ***Conduct of Business***. Meetings of stockholders shall be presided over by the Chairperson of the Board, if any, or in his or her absence by the Vice Chairperson of the Board, if any, or in the absence of the foregoing persons by the Chief Executive Officer, or in the absence of the foregoing persons by the President, or in the absence of the foregoing persons by a Vice President, or in the absence of the foregoing persons by a chairperson designated by the Board, or in the absence of such designation by a chairperson chosen at the meeting. The Secretary shall act as secretary of the meeting, but in his or her absence the chairperson of the meeting may appoint any person to act as secretary of the meeting. The chairperson of any meeting of stockholders shall determine the order of business and the procedure at the meeting, including such regulation of the manner of voting and the conduct of business.

1.8 ***Voting***. The stockholders entitled to vote at any meeting of stockholders shall be determined in accordance with the provisions of **section 1.10** of these bylaws, subject to Section 217 (relating to voting rights of fiduciaries, pledgors and joint owners of stock) and Section 218 (relating to voting trusts and other voting agreements) of the DGCL.

Except as may be otherwise provided in the certificate of incorporation, each stockholder entitled to vote at any meeting of stockholders shall be entitled to one vote for each share of capital stock held by such stockholder which has voting power upon the matter in question. Voting at meetings of stockholders need not be by written ballot and, unless otherwise required by law, need not be conducted by inspectors of election unless so determined by the holders of shares of stock having a majority of the votes which could be cast by the holders of all outstanding shares of stock entitled to vote thereon which are present in person or by proxy at such meeting. If authorized by the Board, such requirement of a written ballot shall be satisfied by a ballot submitted by electronic transmission (as defined in **section 7.2** of these bylaws), *provided* that any such electronic transmission must either set forth or be submitted with information from which it can be determined that the electronic transmission was authorized by the stockholder or proxy holder.

Except as otherwise required by law, the certificate of incorporation or these bylaws, in all matters other than the election of directors, the affirmative vote of a majority of the voting power of the shares present in person or represented by proxy at the meeting and entitled to vote on the subject matter shall be the act of the stockholders. Except as otherwise required by law, the certificate of incorporation or these bylaws, directors shall be elected by a plurality of the voting power of the shares present in person or represented by proxy at the meeting and entitled to vote on the election of directors.

1.9 ***Stockholder Action by Written Consent Without a Meeting***. Unless otherwise provided in the certificate of incorporation, any action required by the DGCL to be taken at any annual or special meeting of stockholders of a corporation, or any action which may be taken at any annual or special meeting of such stockholders, may be taken without a meeting, without prior notice, and without a vote, if a consent or consents in writing, setting forth the action so taken, shall be signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted.

An electronic transmission (as defined in **section 7.2**) consenting to an action to be taken and transmitted by a stockholder or proxy holder, or by a person or persons authorized to act for a stockholder or proxy holder, shall be deemed to be written, signed and dated for purposes of this section, *provided* that any such electronic transmission sets forth or is delivered with information from which the Company can determine (i) that the electronic transmission was transmitted by the stockholder or proxy holder or by a person or persons authorized to act for the stockholder or proxy holder and (ii) the date on which such stockholder or proxy holder or authorized person or persons transmitted such electronic transmission.

In the event that the Board shall have instructed the officers of the Company to solicit the vote or written consent of the stockholders of the Company, an electronic transmission of a stockholder written consent given pursuant to such solicitation may be delivered to the Secretary or the President

of the Company or to a person designated by the Secretary or the President. The Secretary or the President of the Company or a designee of the Secretary or the President shall cause any such written consent by electronic transmission to be reproduced in paper form and inserted into the corporate records.

Prompt notice of the taking of the corporate action without a meeting by less than unanimous written consent shall be given to those stockholders who have not consented in writing and who, if the action had been taken at a meeting, would have been entitled to notice of the meeting if the record date for such meeting had been the date that written consents signed by a sufficient number of holders to take the action were delivered to the Company as provided in Section 228 of the DGCL. In the event that the action which is consented to is such as would have required the filing of a certificate under any provision of the DGCL, if such action had been voted on by stockholders at a meeting thereof, the certificate filed under such provision shall state, in lieu of any statement required by such provision concerning any vote of stockholders, that written consent has been given in accordance with Section 228 of the DGCL.

1.10 ***Record Date for Stockholder Notice; Voting; Giving Consents***. In order that the Company may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, or entitled to express consent to corporate action in writing without a meeting, or entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the Board may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board and which record date:

(i) in the case of determination of stockholders entitled to notice of or to vote at any meeting of stockholders or adjournment thereof, shall, unless otherwise required by law, not be more than sixty nor less than ten days before the date of such meeting;

(ii) in the case of determination of stockholders entitled to express consent to corporate action in writing without a meeting, shall not be more than ten days after the date upon which the resolution fixing the record date is adopted by the Board; and

(iii) in the case of determination of stockholders for any other action, shall not be more than 60 days prior to such other action.

If no record date is fixed by the Board:

(i) the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held;

(ii) the record date for determining stockholders entitled to express consent to corporate action in writing without a meeting when no prior action of the Board is required by law,

shall be the first date on which a signed written consent setting forth the action taken or proposed to be taken is delivered to the Company in accordance with applicable law, or, if prior action by the Board is required by law, shall be at the close of business on the day on which the Board adopts the resolution taking such prior action; and

(iii) the record date for determining stockholders for any other purpose shall be at the close of business on the day on which the Board adopts the resolution relating thereto.

A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting, *provided* that the Board may fix a new record date for the adjourned meeting.

1.11 ***Proxies***. Each stockholder entitled to vote at a meeting of stockholders or to express consent or dissent to corporate action in writing without a meeting may authorize another person or persons to act for such stockholder by proxy authorized by an instrument in writing or by a transmission permitted by law filed in accordance with the procedure established for the meeting, but no such proxy shall be voted or acted upon after three years from its date, unless the proxy provides for a longer period. The revocability of a proxy that states on its face that it is irrevocable shall be governed by the provisions of Section 212 of the DGCL.

1.12 ***List of Stockholders Entitled to Vote***. The officer who has charge of the stock ledger of the Company shall prepare and make, at least ten days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. The Company shall not be required to include electronic mail addresses or other electronic contact information on such list. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting for a period of at least ten days prior to the meeting: (i) on a reasonably accessible electronic network, *provided* that the information required to gain access to such list is provided with the notice of the meeting, or (ii) during ordinary business hours, at the Company's principal place of business. In the event that the Company determines to make the list available on an electronic network, the Company may take reasonable steps to ensure that such information is available only to stockholders of the Company. If the meeting is to be held at a place, then the list shall be produced and kept at the time and place of the meeting during the whole time thereof, and may be inspected by any stockholder who is present. If the meeting is to be held solely by means of remote communication, then the list shall also be open to the examination of any stockholder during the whole time of the meeting on a reasonably accessible electronic network, and the information required to access such list shall be provided with the notice of the meeting.

ARTICLE II — DIRECTORS

2.1 ***Powers***. The business and affairs of the Company shall be managed by or under the direction of the Board, except as may be otherwise provided in the DGCL or the certificate of incorporation.

2.2 ***Number of Directors***. The Board shall consist of one or more members, each of whom shall be a natural person. Unless the certificate of incorporation fixes the number of directors, the number of directors shall be determined from time to time by resolution of the Board. No reduction of the authorized number of directors shall have the effect of removing any director before that director's term of office expires.

2.3 ***Election, Qualification and Term of Office of Directors***. Except as provided in **section 2.4** of these bylaws, and subject to **sections 1.2** and **1.9** of these bylaws, directors shall be elected at each annual meeting of stockholders. Directors need not be stockholders unless so required by the certificate of incorporation or these bylaws. The certificate of incorporation or these bylaws may prescribe other qualifications for directors. Each director shall hold office until such director's successor is elected and qualified or until such director's earlier death, resignation or removal.

2.4 ***Resignation and Vacancies***. Any director may resign at any time upon notice given in writing or by electronic transmission to the Company. A resignation is effective when the resignation is delivered unless the resignation specifies a later effective date or an effective date determined upon the happening of an event or events. A resignation which is conditioned upon the director failing to receive a specified vote for reelection as a director may provide that it is irrevocable. Unless otherwise provided in the certificate of incorporation or these bylaws, when one or more directors resign from the Board, effective at a future date, a majority of the directors then in office, including those who have so resigned, shall have power to fill such vacancy or vacancies, the vote thereon to take effect when such resignation or resignations shall become effective.

Unless otherwise provided in the certificate of incorporation or these bylaws:

(i) Vacancies and newly created directorships resulting from any increase in the authorized number of directors elected by all of the stockholders having the right to vote as a single class may be filled by a majority of the directors then in office, although less than a quorum, or by a sole remaining director.

(ii) Whenever the holders of any class or classes of stock or series thereof are entitled to elect one or more directors by the provisions of the certificate of incorporation, vacancies and newly created directorships of such class or classes or series may be filled by a majority of the directors elected by such class or classes or series thereof then in office, or by a sole remaining director so elected.

If at any time, by reason of death or resignation or other cause, the Company should have no directors in office, then any officer or any stockholder or an executor, administrator, trustee or guardian of a stockholder, or other fiduciary entrusted with like responsibility for the person or estate of a stockholder, may call a special meeting of stockholders in accordance with the provisions of the certificate of incorporation or these bylaws, or may apply to the Court of Chancery for a decree summarily ordering an election as provided in Section 211 of the DGCL.

If, at the time of filling any vacancy or any newly created directorship, the directors then in office constitute less than a majority of the whole Board (as constituted immediately prior to any such

increase), the Court of Chancery may, upon application of any stockholder or stockholders holding at least 10% of the voting stock at the time outstanding having the right to vote for such directors, summarily order an election to be held to fill any such vacancies or newly created directorships, or to replace the directors chosen by the directors then in office as aforesaid, which election shall be governed by the provisions of Section 211 of the DGCL as far as applicable.

A director elected to fill a vacancy shall be elected for the unexpired term of his or her predecessor in office and until such director's successor is elected and qualified, or until such director's earlier death, resignation or removal.

2.5 ***Place of Meetings; Meetings by Telephone***. The Board may hold meetings, both regular and special, either within or outside the State of Delaware.

Unless otherwise restricted by the certificate of incorporation or these bylaws, members of the Board, or any committee designated by the Board, may participate in a meeting of the Board, or any committee, by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and such participation in a meeting shall constitute presence in person at the meeting.

2.6 ***Conduct of Business***. Meetings of the Board shall be presided over by the Chairperson of the Board, if any, or in his or her absence by the Vice Chairperson of the Board, if any, or in the absence of the foregoing persons by a chairperson designated by the Board, or in the absence of such designation by a chairperson chosen at the meeting. The Secretary shall act as secretary of the meeting, but in his or her absence the chairperson of the meeting may appoint any person to act as secretary of the meeting.

2.7 ***Regular Meetings***. Regular meetings of the Board may be held without notice at such time and at such place as shall from time to time be determined by the Board.

2.8 ***Special Meetings; Notice***. Special meetings of the Board for any purpose or purposes may be called at any time by the Chairperson of the Board, the Chief Executive Officer, the President, the Secretary or any two directors.

Notice of the time and place of special meetings shall be:

(i) delivered personally by hand, by courier or by telephone;

(ii) sent by United States first-class mail, postage prepaid;

(iii) sent by facsimile; or

(iv) sent by electronic mail,

directed to each director at that director's address, telephone number, facsimile number or electronic mail address, as the case may be, as shown on the Company's records.

If the notice is (i) delivered personally by hand, by courier or by telephone, (ii) sent by facsimile or (iii) sent by electronic mail, it shall be delivered or sent at least 24 hours before the time of the holding of the meeting. If the notice is sent by United States mail, it shall be deposited in the United States mail at least four days before the time of the holding of the meeting. Any oral notice may be communicated to the director. The notice need not specify the place of the meeting (if the meeting is to be held at the Company's principal executive office) nor the purpose of the meeting.

2.9 ***Quorum; Voting***. At all meetings of the Board, a majority of the total authorized number of directors shall constitute a quorum for the transaction of business. If a quorum is not present at any meeting of the Board, then the directors present thereat may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum is present. A meeting at which a quorum is initially present may continue to transact business notwithstanding the withdrawal of directors, if any action taken is approved by at least a majority of the required quorum for that meeting.

The vote of a majority of the directors present at any meeting at which a quorum is present shall be the act of the Board, except as may be otherwise specifically provided by statute, the certificate of incorporation or these bylaws.

If the certificate of incorporation provides that one or more directors shall have more or less than one vote per director on any matter, every reference in these bylaws to a majority or other proportion of the directors shall refer to a majority or other proportion of the votes of the directors.

2.10 ***Board Action by Written Consent Without a Meeting***. Unless otherwise restricted by the certificate of incorporation or these bylaws, any action required or permitted to be taken at any meeting of the Board, or of any committee thereof, may be taken without a meeting if all members of the Board or committee, as the case may be, consent thereto in writing or by electronic transmission and the writing or writings or electronic transmission or transmissions are filed with the minutes of proceedings of the Board or committee. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form.

2.11 ***Fees and Compensation of Directors***. Unless otherwise restricted by the certificate of incorporation or these bylaws, the Board shall have the authority to fix the compensation of directors.

2.12 ***Removal of Directors***. Unless otherwise restricted by statute, the certificate of incorporation or these bylaws, any director or the entire Board may be removed, with or without cause, by the holders of a majority of the shares then entitled to vote at an election of directors.

No reduction of the authorized number of directors shall have the effect of removing any director prior to the expiration of such director's term of office.

ARTICLE III — COMMITTEES

3.1 ***Committees of Directors***. The Board may designate one or more committees, each committee to consist of one or more of the directors of the Company. The Board may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified

member at any meeting of the committee. In the absence or disqualification of a member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not such member or members constitute a quorum, may unanimously appoint another member of the Board to act at the meeting in the place of any such absent or disqualified member. Any such committee, to the extent provided in the resolution of the Board or in these bylaws, shall have and may exercise all the powers and authority of the Board in the management of the business and affairs of the Company, and may authorize the seal of the Company to be affixed to all papers that may require it; but no such committee shall have the power or authority to (i) approve or adopt, or recommend to the stockholders, any action or matter (other than the election or removal of directors) expressly required by the DGCL to be submitted to stockholders for approval, or (ii) adopt, amend or repeal any bylaw of the Company.

3.2 ***Committee Minutes***. Each committee shall keep regular minutes of its meetings and report the same to the Board when required.

3.3 ***Meetings and Actions of Committees***. Meetings and actions of committees shall be governed by, and held and taken in accordance with, the provisions of:

(i) **section 2.5** (Place of Meetings; Meetings by Telephone);

(ii) **section 2.7** (Regular Meetings);

(iii) **section 2.8** (Special Meetings; Notice);

(iv) **section 2.9** (Quorum; Voting);

(v) **section 2.10** (Board Action by Written Consent Without a Meeting); and

(vi) **section 7.5** (Waiver of Notice)

with such changes in the context of those bylaws as are necessary to substitute the committee and its members for the Board and its members. *However*:

(i) the time of regular meetings of committees may be determined either by resolution of the Board or by resolution of the committee;

(ii) special meetings of committees may also be called by resolution of the Board; and

(iii) notice of special meetings of committees shall also be given to all alternate members, who shall have the right to attend all meetings of the committee. The Board may adopt rules for the government of any committee not inconsistent with the provisions of these bylaws.

3.4 ***Subcommittees***. Unless otherwise provided in the certificate of incorporation, these bylaws or the resolutions of the Board designating the committee, a committee may create one or more

subcommittees, each subcommittee to consist of one or more members of the committee, and delegate to a subcommittee any or all of the powers and authority of the committee.

ARTICLE IV — OFFICERS

4.1 ***Officers***. The officers of the Company shall be a President and a Secretary. The Company may also have, at the discretion of the Board, a Chairperson of the Board, a Vice Chairperson of the Board, a Chief Executive Officer, one or more Vice Presidents, a Chief Financial Officer, a Treasurer, one or more Assistant Treasurers, one or more Assistant Secretaries, and any such other officers as may be appointed in accordance with the provisions of these bylaws. Any number of offices may be held by the same person.

4.2 ***Appointment of Officers***. The Board shall appoint the officers of the Company, except such officers as may be appointed in accordance with the provisions of **section 4.3** of these bylaws.

4.3 ***Subordinate Officers***. The Board may appoint, or empower the Chief Executive Officer or, in the absence of a Chief Executive Officer, the President, to appoint, such other officers and agents as the business of the Company may require. Each of such officers and agents shall hold office for such period, have such authority, and perform such duties as are provided in these bylaws or as the Board may from time to time determine.

4.4 ***Removal and Resignation of Officers***. Any officer may be removed, either with or without cause, by an affirmative vote of the majority of the Board at any regular or special meeting of the Board or, except in the case of an officer chosen by the Board, by any officer upon whom such power of removal may be conferred by the Board.

Any officer may resign at any time by giving written notice to the Company. Any resignation shall take effect at the date of the receipt of that notice or at any later time specified in that notice. Unless otherwise specified in the notice of resignation, the acceptance of the resignation shall not be necessary to make it effective. Any resignation is without prejudice to the rights, if any, of the Company under any contract to which the officer is a party.

4.5 ***Vacancies in Offices***. Any vacancy occurring in any office of the Company shall be filled by the Board or as provided in **section 4.3**.

4.6 ***Representation of Shares of Other Corporations***. Unless otherwise directed by the Board, the President or any other person authorized by the Board or the President is authorized to vote, represent and exercise on behalf of the Company all rights incident to any and all shares of any other corporation or corporations standing in the name of the Company. The authority granted herein may be exercised either by such person directly or by any other person authorized to do so by proxy or power of attorney duly executed by such person having the authority.

4.7 ***Authority and Duties of Officers***. Except as otherwise provided in these bylaws, the officers of the Company shall have such powers and duties in the management of the Company as may

be designated from time to time by the Board and, to the extent not so provided, as generally pertain to their respective offices, subject to the control of the Board.

ARTICLE V — INDEMNIFICATION

5.1 ***Indemnification of Directors and Officers in Third Party Proceedings***. Subject to the other provisions of this **Article V**, the Company shall indemnify, to the fullest extent permitted by the DGCL, as now or hereinafter in effect, any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (a "**Proceeding**") (other than an action by or in the right of the Company) by reason of the fact that such person is or was a director or officer of the Company, or is or was a director or officer of the Company serving at the request of the Company as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such Proceeding if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the Company, and, with respect to any criminal action or proceeding, had no reasonable cause to believe such person's conduct was unlawful. The termination of any Proceeding by judgment, order, settlement, conviction, or upon a plea of *nolo contendere* or its equivalent, shall not, of itself, create a presumption that the person did not act in good faith and in a manner which such person reasonably believed to be in or not opposed to the best interests of the Company, and, with respect to any criminal action or proceeding, had reasonable cause to believe that such person's conduct was unlawful.

5.2 ***Indemnification of Directors and Officers in Actions by or in the Right of the Company***. Subject to the other provisions of this **Article V**, the Company shall indemnify, to the fullest extent permitted by the DGCL, as now or hereinafter in effect, any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the Company to procure a judgment in its favor by reason of the fact that such person is or was a director or officer of the Company, or is or was a director or officer of the Company serving at the request of the Company as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection with the defense or settlement of such action or suit if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the Company; except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the Company unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

5.3 ***Successful Defense***. To the extent that a present or former director or officer of the Company has been successful on the merits or otherwise in defense of any action, suit or proceeding described in **section 5.1** or **section 5.2**, or in defense of any claim, issue or matter therein, such person

shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection therewith.

5.4 ***Indemnification of Others***. Subject to the other provisions of this **Article V**, the Company shall have power to indemnify its employees and agents to the extent not prohibited by the DGCL or other applicable law. The Board shall have the power to delegate to such person or persons the determination of whether employees or agents shall be indemnified.

5.5 ***Advanced Payment of Expenses***. Expenses (including attorneys' fees) incurred by an officer or director of the Company in defending any Proceeding shall be paid by the Company in advance of the final disposition of such Proceeding upon receipt of an undertaking by or on behalf of the person to repay such amounts if it shall ultimately be determined that the person is not entitled to be indemnified under this **Article V** or the DGCL. Such expenses (including attorneys' fees) incurred by former directors and officers or other employees and agents may be so paid upon such terms and conditions, if any, as the Company deems appropriate.

Notwithstanding the foregoing, unless otherwise determined pursuant to **section 5.8**, no advance shall be made by the Company to an officer of the Company (except by reason of the fact that such officer is or was a director of the Company, in which event this paragraph shall not apply) in any Proceeding if a determination is reasonably and promptly made (i) by a majority vote of the directors who are not parties to such Proceeding, even though less than a quorum, or (ii) by a committee of such directors designated by majority vote of such directors, even though less than a quorum, or (iii) if there are no such directors, or if such directors so direct, by independent legal counsel in a written opinion, that facts known to the decision-making party at the time such determination is made demonstrate clearly and convincingly that such person acted in bad faith or in a manner that such person did not believe to be in or not opposed to the best interests of the Company.

5.6 ***Limitation on Indemnification and Advancement of Expenses***. Subject to the requirements in **section 5.3** and the DGCL, the Company shall not be required to provide indemnification or, with respect to clauses (i), (iii) and (iv) below, advance expenses to any person pursuant to this **Article V**:

(i) in connection with any Proceeding (or part thereof) initiated by such person except (i) as otherwise required by law, (ii) in specific cases if the Proceeding was authorized by the Board, or (iii) as is required to be made under **section 5.7**;

(ii) in connection with any Proceeding (or part thereof) against such person providing for an accounting or disgorgement of profits pursuant to the provisions of Section 16(b) of the Securities Exchange Act of 1934, as amended, or similar provisions of any federal, state or local statutory law or common law;

(iii) for amounts for which payment has actually been made to or on behalf of such person under any statute, insurance policy or indemnity provision, except with respect to any excess beyond the amount paid; or

(iv) if prohibited by applicable law.

5.7 ***Determination; Claim***. If a claim for indemnification or advancement of expenses under this **Article V** is not paid in full within 60 days after a written claim therefor has been received by the Company, the claimant may file suit to recover the unpaid amount of such claim and, if successful in whole or in part, shall be entitled to be paid the expense of prosecuting such claim. In any such suit, the Company shall have the burden of proving that the claimant was not entitled to the requested indemnification or advancement of expenses under applicable law.

5.8 ***Non-Exclusivity of Rights***. The indemnification and advancement of expenses provided by, or granted pursuant to, this **Article V** shall not be deemed exclusive of any other rights to which those seeking indemnification or advancement of expenses may be entitled under the certificate of incorporation or any statute, bylaw, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in such person's official capacity and as to action in another capacity while holding such office. The Company is specifically authorized to enter into individual contracts with any or all of its directors, officers, employees or agents respecting indemnification and advancement of expenses, to the fullest extent not prohibited by the DGCL or other applicable law.

5.9 ***Insurance***. The Company may purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the Company, or is or was serving at the request of the Company as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against such person and incurred by such person in any such capacity, or arising out of such person's status as such, whether or not the Company would have the power to indemnify such person against such liability under the provisions of the DGCL.

5.10 ***Survival***. The rights to indemnification and advancement of expenses conferred by this **Article V** shall continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

5.11 ***Effect of Repeal or Modification***. Any repeal or modification of this **Article V** shall not adversely affect any right or protection hereunder of any person in respect of any act or omission occurring prior to the time of such repeal or modification.

5.12 ***Certain Definitions***. For purposes of this **Article V**, references to the "**Company**" shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, employees or agents, so that any person who is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, shall stand in the same position under the provisions of this **Article V** with respect to the resulting or surviving corporation as such person would have with respect to such constituent corporation if its separate existence had continued. For purposes of this **Article V**, references to "**other enterprises**" shall include employee

benefit plans; references to "**fines**" shall include any excise taxes assessed on a person with respect to an employee benefit plan; and references to "**serving at the request of the Company**" shall include any service as a director, officer, employee or agent of the Company which imposes duties on, or involves services by, such director, officer, employee or agent with respect to an employee benefit plan, its participants or beneficiaries; and a person who acted in good faith and in a manner such person reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner "**not opposed to the best interests of the Company**" as referred to in this **Article V**.

ARTICLE VI — STOCK

6.1 ***Stock Certificates; Partly Paid Shares***. The shares of the Company shall be represented by certificates, *provided* that the Board may provide by resolution or resolutions that some or all of any or all classes or series of its stock shall be uncertificated shares. Any such resolution shall not apply to shares represented by a certificate until such certificate is surrendered to the Company. Every holder of stock represented by certificates shall be entitled to have a certificate signed by, or in the name of the Company by the Chairperson of the Board or Vice-Chairperson of the Board, or the President or a Vice-President, and by the Treasurer or an Assistant Treasurer, or the Secretary or an Assistant Secretary of the Company representing the number of shares registered in certificate form. Any or all of the signatures on the certificate may be a facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate has ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the Company with the same effect as if such person were such officer, transfer agent or registrar at the date of issue. The Company shall not have power to issue a certificate in bearer form.

The Company may issue the whole or any part of its shares as partly paid and subject to call for the remainder of the consideration to be paid therefor. Upon the face or back of each stock certificate issued to represent any such partly paid shares, or upon the books and records of the Company in the case of uncertificated partly paid shares, the total amount of the consideration to be paid therefor and the amount paid thereon shall be stated. Upon the declaration of any dividend on fully paid shares, the Company shall declare a dividend upon partly paid shares of the same class, but only upon the basis of the percentage of the consideration actually paid thereon.

6.2 ***Special Designation on Certificates***. If the Company is authorized to issue more than one class of stock or more than one series of any class, then the powers, the designations, the preferences, and the relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights shall be set forth in full or summarized on the face or back of the certificate that the Company shall issue to represent such class or series of stock; *provided* that, except as otherwise provided in Section 202 of the DGCL, in lieu of the foregoing requirements there may be set forth on the face or back of the certificate that the Company shall issue to represent such class or series of stock a statement that the Company will furnish without charge to each stockholder who so requests the powers, the designations, the preferences, and the relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights.

6.3 ***Lost Certificates***. Except as provided in this **section 6.3**, no new certificates for shares shall be issued to replace a previously issued certificate unless the latter is surrendered to the Company and cancelled at the same time. The Company may issue a new certificate of stock or uncertificated shares in the place of any certificate theretofore issued by it, alleged to have been lost, stolen or destroyed, and the Company may require the owner of the lost, stolen or destroyed certificate, or such owner's legal representative, to give the Company a bond sufficient to indemnify it against any claim that may be made against it on account of the alleged loss, theft or destruction of any such certificate or the issuance of such new certificate or uncertificated shares.

6.4 ***Dividends***. The Board, subject to any restrictions contained in the certificate of incorporation or applicable law, may declare and pay dividends upon the shares of the Company's capital stock. Dividends may be paid in cash, in property, or in shares of the Company's capital stock, subject to the provisions of the certificate of incorporation.

The Board may set apart out of any of the funds of the Company available for dividends a reserve or reserves for any proper purpose and may abolish any such reserve.

6.5 ***Stock Transfer Agreements***. The Company shall have power to enter into and perform any agreement with any number of stockholders of any one or more classes of stock of the Company to restrict the transfer of shares of stock of the Company of any one or more classes owned by such stockholders in any manner not prohibited by the DGCL.

6.6 ***Registered Stockholders***. The Company:

(i) shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends and to vote as such owner;

(ii) shall be entitled to hold liable for calls and assessments the person registered on its books as the owner of shares; and

(iii) shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of another person, whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Delaware.

6.7 ***Transfers***. Transfers of record of shares of stock of the Company shall be made only upon its books by the holders thereof, in person or by an attorney duly authorized, and upon the surrender of a certificate or certificates for a like number of shares, properly endorsed.

ARTICLE VII — MANNER OF GIVING NOTICE AND WAIVER

7.1 ***Notice of Stockholder Meetings***. Notice of any meeting of stockholders, if mailed, is given when deposited in the United States mail, postage prepaid, directed to the stockholder at such stockholder's address as it appears on the Company's records. An affidavit of the Secretary or an Assistant Secretary of the Company or of the transfer agent or other agent of the Company that the notice has been given shall, in the absence of fraud, be *prima facie* evidence of the facts stated therein.

7.2 ***Notice by Electronic Transmission***. Without limiting the manner by which notice otherwise may be given effectively to stockholders pursuant to the DGCL, the certificate of incorporation or these bylaws, any notice to stockholders given by the Company under any provision of the DGCL, the certificate of incorporation or these bylaws shall be effective if given by a form of electronic transmission consented to by the stockholder to whom the notice is given. Any such consent shall be revocable by the stockholder by written notice to the Company. Any such consent shall be deemed revoked if:

(i) the Company is unable to deliver by electronic transmission two consecutive notices given by the Company in accordance with such consent; and

(ii) such inability becomes known to the Secretary or an Assistant Secretary of the Company or to the transfer agent, or other person responsible for the giving of notice.

However, the inadvertent failure to treat such inability as a revocation shall not invalidate any meeting or other action.

Any notice given pursuant to the preceding paragraph shall be deemed given:

(i) if by facsimile telecommunication, when directed to a number at which the stockholder has consented to receive notice;

(ii) if by electronic mail, when directed to an electronic mail address at which the stockholder has consented to receive notice;

(iii) if by a posting on an electronic network together with separate notice to the stockholder of such specific posting, upon the later of (A) such posting and (B) the giving of such separate notice; and

(iv) if by any other form of electronic transmission, when directed to the stockholder.

An affidavit of the Secretary or an Assistant Secretary or of the transfer agent or other agent of the Company that the notice has been given by a form of electronic transmission shall, in the absence of fraud, be *prima facie* evidence of the facts stated therein.

An "**electronic transmission**" means any form of communication, not directly involving the physical transmission of paper, that creates a record that may be retained, retrieved, and reviewed by a recipient thereof, and that may be directly reproduced in paper form by such a recipient through an automated process.

Notice by a form of electronic transmission shall not apply to Sections 164, 296, 311, 312 or 324 of the DGCL.

7.3 ***Notice to Stockholders Sharing an Address***. Except as otherwise prohibited under the DGCL, without limiting the manner by which notice otherwise may be given effectively to stockholders,

any notice to stockholders given by the Company under the provisions of the DGCL, the certificate of incorporation or these bylaws shall be effective if given by a single written notice to stockholders who share an address if consented to by the stockholders at that address to whom such notice is given. Any such consent shall be revocable by the stockholder by written notice to the Company. Any stockholder who fails to object in writing to the Company, within 60 days of having been given written notice by the Company of its intention to send the single notice, shall be deemed to have consented to receiving such single written notice.

7.4 ***Notice to Person with Whom Communication is Unlawful***. Whenever notice is required to be given, under the DGCL, the certificate of incorporation or these bylaws, to any person with whom communication is unlawful, the giving of such notice to such person shall not be required and there shall be no duty to apply to any governmental authority or agency for a license or permit to give such notice to such person. Any action or meeting which shall be taken or held without notice to any such person with whom communication is unlawful shall have the same force and effect as if such notice had been duly given. In the event that the action taken by the Company is such as to require the filing of a certificate under the DGCL, the certificate shall state, if such is the fact and if notice is required, that notice was given to all persons entitled to receive notice except such persons with whom communication is unlawful.

7.5 ***Waiver of Notice***. Whenever notice is required to be given under any provision of the DGCL, the certificate of incorporation or these bylaws, a written waiver, signed by the person entitled to notice, or a waiver by electronic transmission by the person entitled to notice, whether before or after the time of the event for which notice is to be given, shall be deemed equivalent to notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the stockholders need be specified in any written waiver of notice or any waiver by electronic transmission unless so required by the certificate of incorporation or these bylaws.

ARTICLE VIII — GENERAL MATTERS

8.1 ***Fiscal Year***. The fiscal year of the Company shall be fixed by resolution of the Board and may be changed by the Board.

8.2 ***Seal***. The Company may adopt a corporate seal, which shall be in such form as may be approved from time to time by the Board. The Company may use the corporate seal by causing it or a facsimile thereof to be impressed or affixed or in any other manner reproduced.

8.3 ***Annual Report***.The Company shall cause an annual report to be sent to the stockholders of the Company to the extent required by applicable law. If and so long as there are fewer than 100 holders of record of the Company's shares, the requirement of sending an annual report to the stockholders of the Company is expressly waived (to the extent permitted under applicable law).

8.4 ***Construction; Definitions***. Unless the context requires otherwise, the general provisions, rules of construction, and definitions in the DGCL shall govern the construction of these bylaws. Without limiting the generality of this provision, the singular number includes the plural, the plural number includes the singular, and the term "person" includes both a corporation and a natural person.

ARTICLE IX — AMENDMENTS

These bylaws may be adopted, amended or repealed by the stockholders entitled to vote. However, the Company may, in its certificate of incorporation, confer the power to adopt, amend or repeal bylaws upon the directors. The fact that such power has been so conferred upon the directors shall not divest the stockholders of the power, nor limit their power to adopt, amend or repeal bylaws.

A bylaw amendment adopted by stockholders which specifies the votes that shall be necessary for the election of directors shall not be further amended or repealed by the Board.

SILK ROAD MEDICAL, INC.

CERTIFICATE OF ADOPTION OF BYLAWS

The undersigned hereby certifies that he or she is the duly appointed incorporator of Silk Road Medical, Inc., a Delaware corporation (the "**Company**"), and that the foregoing bylaws, comprising 20 pages, were adopted as the bylaws of the Company on March 21, 2007.

The undersigned has executed this certificate as of March 21, 2007.

/s/ Philip Oettinger

Philip Oettinger

Exhibit 4.2

AMENDED AND RESTATED

REGISTRATION RIGHTS AGREEMENT

BY AND AMONG

WARBURG PINCUS PRIVATE EQUITY X, L.P.,

WARBURG PINCUS X PARTNERS, L.P.,

VERTICAL FUND I, L.P.

VERTICAL FUND II, L.P.

OTHER INVESTORS SET FORTH ON SCHEDULE A HERETO

AND

SILK ROAD MEDICAL, INC.

Dated as of July 7, 2017

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AMENDED AND RESTATED REGISTRATION RIGHTS AGREEMENT

This Amended and Restated Registration Rights Agreement (the "Agreement") is made, entered into and effective July 7, 2017, by and among Warburg Pincus Private Equity X, L.P. ("WPX"), Warburg Pincus X Partners, L.P. ("WPXP" and, together with WPX, "WP"), Vertical Fund I, L.P. and Vertical Fund II, L.P. (collectively, "TVG"), the other investors set forth on Schedule A hereto, and Silk Road Medical, Inc., a Delaware corporation (including any of its successors by merger, acquisition, reorganization, conversion or otherwise (the "Company")).

WITNESSETH:

WHEREAS, the Institutional Investors and the Company are party to a Registration Rights Agreement, dated as of April 7, 2011 (the "Original Agreement");

WHEREAS, the Institutional Investors holding a majority of the then-outstanding Registrable Securities held by all Institutional Investors and the Company desire to amend and restate the Original Agreement upon the terms and conditions set forth in this Agreement; and

WHEREAS, the Board of Directors of the Company (the "Board") has determined that it is in the best interests of the Company that the Company enter into this Agreement to amend and restate the Original Agreement.

NOW, THEREFORE, in consideration of the foregoing and the mutual promises, covenants and agreements of the parties hereto, and for other good and valuable consideration the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

ARTICLE I

DEFINITIONS

SECTION 1.01. Defined Terms. As used in this Agreement, the following terms shall have the following meanings:

"Adverse Disclosure" means public disclosure of material non-public information that, in the Board of Directors' good faith judgment, after consultation with independent outside counsel to the Company, would be required to be made in any Registration Statement filed with the SEC by the Company so that such Registration Statement would not be materially misleading and would not be required to be made at such time but for the filing of such Registration Statement, but which information the Company has a bona fide business purpose for not disclosing publicly.

"Affiliate" has the meaning specified in Rule 12b-2 under the Exchange Act; provided that no Holder shall be deemed an Affiliate of the Company or its Subsidiaries for purposes of this Agreement; provided further that neither portfolio companies (as such term is commonly used in the private equity industry) of an Institutional Investor nor limited partners, non-managing members or other similar direct or indirect investors in an Institutional Investor

shall be deemed to be Affiliates of such Institutional Investor. The term "Affiliated" has a correlative meaning.

"Agreement" has the meaning set forth in the preamble.

"Board of Directors" means the board of directors of the Company.

"Business Day" means any day other than a Saturday, Sunday or a day on which commercial banks located in New York, New York are required or authorized by law or executive order to be closed.

"Change of Control" means the occurrence of any of the following: (i) the sale, lease or transfer, in a single transaction or in a series of related transactions, of all or substantially all of the assets of the Company and its Subsidiaries, taken as a whole, to any Person or (ii) the acquisition by any Person or group (within the meaning of Section 13(d)(3) or Section 14(d)(2) of the Exchange Act, or any successor provision), including any group acting for the purpose of acquiring, holding or disposing of securities (within the meaning of Rule 13d-5(b)(1) under the Exchange Act, or any successor provision), in a single transaction or in a series of related transactions, by way of merger, consolidation or other business combination or purchase of beneficial ownership (within the meaning of Rule 13d-3 under the Exchange Act, or any successor provision) of 50% or more of the total voting power of the Company or any of its direct or indirect parent companies holding directly or indirectly 100% of the total voting power of the Company.

"Company" has the meaning set forth in the preamble.

"Company Public Sale" has the meaning set forth in Section 2.03(a).

"Company Share Equivalent" means securities exercisable, exchangeable or convertible into Company Shares.

"Company Shares" means the shares of common stock, par value $0.001 per share, of the Company, any securities into which such shares of common stock shall have been changed, or any securities resulting from any reclassification, recapitalization or similar transactions with respect to such shares of common stock.

"Company Stockholders Agreement" means the Stockholders Agreement, dated as of July 7, 2017, by and among the Investors set forth on Schedule A thereto and the Company, as amended, modified or supplemented from time to time.

"Demand Company Notice" has the meaning set forth in Section 2.01(d).

"Demand Notice" has the meaning set forth in Section 2.01(a).

"Demand Party" has the meaning set forth in Section 2.01(a).

"Demand Period" has the meaning set forth in Section 2.01(c).

"Demand Registration" has the meaning set forth in Section 2.01(a).

"Demand Registration Statement" has the meaning set forth in Section 2.01(a).

"Demand Suspension" has the meaning set forth in Section 2.01(e).

"Eligibility Notice" has the meaning set forth in Section 2.02(a)(i).

"Employee Shareholder" means each officer, director, employee or consultant of the Company or any of its Subsidiaries who both holds Registrable Securities and is a party to this Agreement.

"Exchange Act" means the Securities Exchange Act of 1934, as amended, and any successor thereto, and any rules and regulations promulgated thereunder, all as the same shall be in effect from time to time.

"FINRA" means the Financial Industry Regulatory Authority.

"Form S-1" means a registration statement on Form S-1 under the Securities Act, or any comparable or successor form or forms thereto.

"Form S-3" means a registration statement on Form S-3 under the Securities Act, or any comparable or successor form or forms thereto.

"Holder" means any holder of Registrable Securities that is a party hereto or that succeeds to rights hereunder pursuant to Section 3.07.

"Initial S-3 Holder" has the meaning set forth in Section 2.02(a)(i).

"Initiating Shelf Take-Down Holder" has the meaning set forth in Section 2.02(e).

"Initiating Holder" has the meaning set forth in Section 2.02(a).

"Institutional Investor" means (i) WPXP and WP, any successor funds thereto, and their respective Affiliates that are direct or indirect equity investors in the Company (ii) TVG I and TVG II, any successor funds thereto, and their respective Affiliates that are direct or indirect equity investors in the Company, (iii) Norwest, any successor funds thereto, and their respective Affiliates that are direct or indirect equity investors in the Company and (iv) Janus, any successor funds thereto, and their respective Affiliates that are direct or indirect equity investors in the Company (excluding, for the avoidance of doubt, with respect to clauses (i), (ii), (iii) and (iv) any Employee Shareholders).

"IPO" means the first underwritten public offering and sale of Company Shares for cash pursuant to an effective registration statement (other than on Form S-4, S-8 or a comparable form) under the Securities Act.

"Issuer Free Writing Prospectus" means an issuer free writing prospectus, as defined in Rule 433 under the Securities Act, relating to an offer of Registrable Securities.

"Janus" means Janus Henderson Global Life Sciences Fund and Janus Capital Funds PLC on Behalf of its Series Janus Global Life Sciences Fund and their Affiliates.

"Long-Form Registration" has the meaning set forth in Section 2.01(a).

"Loss" or "Losses" has the meaning set forth in Section 2.09(a).

"Marketed Underwritten Offering" means any Underwritten Offering (including a Marketed Underwritten Shelf Take-Down, but, for the avoidance of doubt, not including any Shelf Take-Down that is not a Marketed Underwritten Shelf Take-Down) that involves a customary "road show" (including an "electronic road show") or other substantial marketing effort by the Company and the underwriters over a period of at least 48 hours.

"Marketed Underwritten Shelf Take-Down" has the meaning set forth in Section 2.02(e).

"New Institutional Investor" means an Institutional Investor other than TVG or WP.

"Norwest" means Norwest Venture Partners XIII, L.P. and its Affiliates.

"Participating Holder" means, with respect to any Registration, any Holder of Registrable Securities covered by the applicable Registration Statement.

"Participating Institutional Investor" means, with respect to any Registration, any Institutional Investor that is a Holder of Registrable Securities covered by the applicable Registration Statement.

"Permitted Assignee" has the meaning set forth in Section 3.07.

"Person" means any individual, partnership, corporation, limited liability company, unincorporated organization, trust or joint venture, or a governmental agency or political subdivision thereof or any other entity.

"Piggyback Registration" has the meaning set forth in Section 2.03(a).

"Pro Rata Institutional Investor Shelf Percentage" means, as of the date that an Initiating Holder delivers a Shelf Notice to the Company pursuant to Section 2.02(a), any other Participating Institutional Investor delivers a written notice to the Company with respect to such Shelf Notice pursuant to Section 2.02(c) or the Initial S-3 Holders deliver S-3 Shelf Notices to the Company pursuant to Section 2.02(a), an amount equal to the fraction (expressed as a percentage) determined by dividing (i) the number of Registrable Securities held by such Initiating Holder (and its Affiliates and Permitted Assignees), any other Participating Institutional Investor (and its Affiliates and Permitted Assignees) or the Initial S-3 Holders, respectively,

requested by such Initiating Holder, other Participating Institutional Investor or Initial S-3 Holders, respectively, to be registered on the applicable Shelf Registration Statement as of such date by (ii) the total number of Registrable Securities held as of such date by such Initiating Holder (and its Affiliates and Permitted Assignees), any other Participating Institutional Investor (and its Affiliates and Permitted Assignees) or Initial S-3 Holders, respectively.

"Pro Rata Shelf Percentage" means, as of any date, with respect to a Holder, a number of Registrable Securities equal to (i) the number of Registrable Securities held by such Holder as of such date multiplied by (ii) the largest Pro Rata Institutional Investor Shelf Percentage with respect to the Participating Institutional Investor(s) for the applicable Shelf Registration Statement.

"Prospectus" means the prospectus included in any Registration Statement, all amendments and supplements to such prospectus, including pre- and post-effective amendments to such Registration Statement, and all other material incorporated by reference in such prospectus.

"Registrable Securities" means any Company Shares and any securities that may be issued or distributed or be issuable or distributable in respect of, or in substitution for, any Company Shares by way of conversion, exercise, dividend, stock split or other distribution, merger, consolidation, exchange, recapitalization or reclassification or similar transaction, in each case whether now owned or hereinafter acquired; provided, however, that any such Registrable Securities shall cease to be Registrable Securities to the extent (i) a Registration Statement with respect to the sale of such Registrable Securities has been declared effective under the Securities Act and such Registrable Securities have been disposed of in accordance with the plan of distribution set forth in such Registration Statement, (ii) such Registrable Securities have been distributed pursuant to Rule 144 or Rule 145 of the Securities Act (or any successor rule) and new certificates for them not bearing a legend restricting transfer shall have been delivered by the Company, (iii) a Registration Statement on Form S-8 (or any successor form) covering such securities is effective or (iv) such security ceases to be outstanding. For the avoidance of doubt, it is understood that, with respect to any Registrable Securities for which a Holder holds vested but unexercised options or other Company Share Equivalents at such time exercisable for, convertible into or exchangeable for Company Shares, to the extent that such Registrable Securities are to be sold pursuant to this Agreement, such Holder must exercise the relevant option or exercise, convert or exchange such other relevant Company Share Equivalent and transfer the underlying Registrable Securities (in each case, net of any amounts required to be withheld by the Company in connection with such exercise).

"Registration" means a registration with the SEC of the Company's securities for offer and sale to the public under a Registration Statement. The terms "Register" and "Registered" shall have correlative meanings.

"Registration Expenses" has the meaning set forth in Section 2.08.

"Registration Statement" means any registration statement of the Company that covers Registrable Securities pursuant to the provisions of this Agreement filed with, or to be

filed with, the SEC under the rules and regulations promulgated under the Securities Act, including the related Prospectus, amendments and supplements to such registration statement, including pre- and post-effective amendments, and all exhibits and all material incorporated by reference in such registration statement.

"Representatives" means, with respect to any Person, any of such Person's officers, directors, employees, agents, attorneys, accountants, actuaries, consultants, equity financing partners or financial advisors or other Person associated with, or acting on behalf of, such Person.

"Rule 144" means Rule 144 (or any successor provisions) under the Securities Act.

"S-3 Eligibility Date" has the meaning set forth in Section 2.02(a)(i).

"S-3 Shelf Notice" has the meaning set forth in Section 2.02(a)(i).

"SEC" means the Securities and Exchange Commission.

"Securities Act" means the Securities Act of 1933, as amended, and any successor thereto, and any rules and regulations promulgated thereunder, all as the same shall be in effect from time to time.

"Shelf Holder" has the meaning set forth in Section 2.02(c).

"Shelf Notice" has the meaning set forth in Section 2.02(a).

"Shelf Period" has the meaning set forth in Section 2.02(b).

"Shelf Registration" means a Registration effected pursuant to Section 2.02.

"Shelf Registration Statement" means a Registration Statement of the Company filed with the SEC on either (i) Form S-3 or (ii) if the Company is not permitted to file a Registration Statement on Form S-3, an evergreen Registration Statement on Form S-1, in each case for an offering to be made on a continuous basis pursuant to Rule 415 under the Securities Act (or any successor provision) covering all or any portion of the Registrable Securities, as applicable.

"Shelf Suspension" has the meaning set forth in Section 2.02(d).

"Shelf Take-Down" has the meaning set forth in Section 2.02(e).

"Short-Form Registration" has the meaning set forth in Section 2.01(a).

"Special Registration" has the meaning set forth in Section 2.12.

"Stock Purchase Agreement" means the Third Series C Preferred Stock Purchase Agreement, dated as of July 7, 2017, by and among the Company and the Investors listed on Exhibit A thereto.

"Subsidiary" means, with respect to any Person, any entity of which (i) a majority of the total voting power of shares of stock or equivalent ownership interests entitled (without regard to the occurrence of any contingency) to vote in the election of directors, managers, trustees or other members of the applicable governing body thereof is at the time owned or controlled, directly or indirectly, by that Person or one or more of the other Subsidiaries of that Person or a combination thereof, or (ii) if no such governing body exists at such entity, a majority of the total voting power of shares of stock or equivalent ownership interests of the entity is at the time owned or controlled, directly or indirectly, by that Person or one or more Subsidiaries of that Person or a combination thereof. For purposes hereof, a Person or Persons shall be deemed to have a majority ownership interest in a limited liability company, partnership, association or other business entity if such Person or Persons shall be allocated a majority of limited liability company, partnership, association or other business entity gains or losses or shall be or control the managing member or general partner of such limited liability company, partnership, association or other business entity.

"TVG" means TVG I and TVG II.

"TVG I" means Vertical Fund I, L.P.

"TVG II" means Vertical Fund II, L.P.

"TVG Registration Demands" has the meaning set forth in Section 2.11(c).

"Underwritten Offering" means a Registration in which securities of the Company are sold to an underwriter or underwriters on a firm commitment basis for reoffering to the public.

"Underwritten Shelf Take-Down Notice" has the meaning set forth in Section 2.02(e).

"WP" has the meaning set forth in the preamble.

"WP Registration Demands" has the meaning set forth in Section 2.11(c).

"WPX" has the meaning set forth in the preamble.

"WPXP" has the meaning set forth in the preamble.

SECTION 1.02. Other Interpretive Provisions. (a) In this Agreement, except as otherwise provided:

(i) A reference to an Article, Section, Schedule or Exhibit is a reference to an Article or Section of, or Schedule or Exhibit to, this Agreement, and references to this Agreement include any recital in or Schedule or Exhibit to this Agreement.

(ii) The Schedules and Exhibits form an integral part of and are hereby incorporated by reference into this Agreement.

(iii) Headings and the Table of Contents are inserted for convenience only and shall not affect the construction or interpretation of this Agreement.

(iv) Unless the context otherwise requires, words importing the singular include the plural and vice versa, words importing the masculine include the feminine and vice versa, and words importing persons include corporations, associations, partnerships, joint ventures and limited liability companies and vice versa.

(v) Unless the context otherwise requires, the words “hereof” and “herein”, and words of similar meaning refer to this Agreement as a whole and not to any particular Article, Section or clause. The words “include”, “includes” and “including” shall be deemed to be followed by the words “without limitation.”

(vi) A reference to any legislation or to any provision of any legislation shall include any amendment, modification or re-enactment thereof and any legislative provision substituted therefor.

(b) The parties hereto have participated jointly in the negotiation and drafting of this Agreement. In the event an ambiguity or question of intention or interpretation arises, this Agreement shall be construed as if drafted jointly by the parties hereto, and no presumption or burden of proof shall arise favoring or disfavoring any party by virtue of the authorship of any provisions of this Agreement.

ARTICLE II

REGISTRATION RIGHTS

SECTION 2.01. Demand Registration.

(a) Demand by Institutional Investor. At any time following the six month anniversary of the IPO, any Institutional Investor (such Institutional Investor, a “Demand Party”) may, subject to Section 2.11, make a written request (a “Demand Notice”) to the Company for Registration of all or part of the Registrable Securities held by such Demand Party (i) on Form S-1 (a “Long-Form Registration”) or (ii) on Form S-3 (a “Short-Form Registration”) if the Company qualifies to use such short form (any such requested Long-Form Registration or Short-Form Registration, a “Demand Registration”). Each Demand Notice shall specify the aggregate amount of Registrable Securities of the Demand Party to be registered and the intended methods

of disposition thereof. Subject to Section 2.11, after delivery of such Demand Notice, the Company (x) shall file promptly (and, in any event, within (i) ninety (90) days in the case of a request for a Long-Form Registration or (ii) thirty (30) days in the case of a request for a Short-Form Registration, in each case, following delivery of such Demand Notice) with the SEC a Registration Statement relating to such Demand Registration (a "Demand Registration Statement"), and (y) shall use its reasonable best efforts to cause such Demand Registration Statement to promptly be declared effective under (x) the Securities Act and (y) the "Blue Sky" laws of such jurisdictions as any Participating Holder or any underwriter, if any, reasonably requests.

(b) Demand Withdrawal. A Demand Party may withdraw its Registrable Securities from a Demand Registration at any time prior to the effectiveness of the applicable Demand Registration Statement. Upon delivery of a notice by the Demand Party to such effect, the Company shall cease all efforts to secure effectiveness of the applicable Demand Registration Statement, and such Registration shall not be deemed to be a Demand Registration with respect to such Demand Party for purposes of Section 2.11.

(c) Effective Registration. The Company shall be deemed to have effected a Demand Registration with respect to the applicable Demand Party for purposes of Section 2.11 if the Demand Registration Statement is declared effective by the SEC and remains effective for not less than 180 days (or such shorter period as shall terminate when all Registrable Securities covered by such Registration Statement have been sold or withdrawn), or if such Registration Statement relates to an Underwritten Offering, such longer period as, in the opinion of counsel for the underwriter or underwriters, a Prospectus is required by law to be delivered in connection with sales of Registrable Securities by an underwriter or dealer (the applicable period, the "Demand Period"). No Demand Registration shall be deemed to have been effected for purposes of Section 2.11 if (i) during the Demand Period such Registration is interfered with by any stop order, injunction or other order or requirement of the SEC or other governmental agency or court or (ii) the conditions to closing specified in the underwriting agreement, if any, entered into in connection with such Registration are not satisfied other than by reason of a wrongful act, misrepresentation or breach of such applicable underwriting agreement by a Demand Party.

(d) Demand Company Notice. Subject to Section 2.11, promptly upon delivery of any Demand Notice (but in no event more than five (5) Business Days thereafter), the Company shall deliver a written notice (a "Demand Company Notice") of any such Registration request to all Holders (other than the Demand Party), and the Company shall include in such Demand Registration all such Registrable Securities of such Holders which the Company has received written requests for inclusion therein within ten (10) Business Days after the date that such Demand Company Notice has been delivered. All requests made pursuant to this Section 2.01(d) shall specify the aggregate amount of Registrable Securities of such Holder to be registered.

(e) Delay in Filing; Suspension of Registration. If the Company shall furnish to the Participating Holders a certificate signed by the Chief Executive Officer or equivalent senior executive officer of the Company stating that the filing, effectiveness or continued use of

a Demand Registration Statement would require the Company to make an Adverse Disclosure, then the Company may delay the filing (but not the preparation of) or initial effectiveness of, or suspend use of, the Demand Registration Statement (a "Demand Suspension"); provided, however, that the Company, unless otherwise approved in writing by the Institutional Investors holding a majority of the then-outstanding Registrable Securities held by all Institutional Investors, shall not be permitted to exercise aggregate Demand Suspensions and Shelf Suspensions more than twice, or for more than an aggregate of 90 days, in each case, during any 12-month period; provided, further, that in the event of a Demand Suspension, such Demand Suspension shall terminate at such earlier time as the Company would no longer be required to make any Adverse Disclosure. Each Participating Holder shall keep confidential the fact that a Demand Suspension is in effect, the certificate referred to above and its contents unless and until otherwise notified by the Company, except (A) for disclosure to such Participating Holder's employees, agents and professional advisers who reasonably need to know such information for purposes of assisting the Participating Holder with respect to its investment in the Company Shares and agree to keep it confidential, (B) for disclosures to the extent required in order to comply with reporting obligations to its limited partners or other direct or indirect investors who have agreed to keep such information confidential, (C) if and to the extent such matters are publicly disclosed by the Company or any of its Subsidiaries or any other Person that, to the actual knowledge of such Participating Holder, was not subject to an obligation or duty of confidentiality to the Company and its Subsidiaries and (D) as required by law, rule or regulation. In the case of a Demand Suspension, the Participating Holders agree to suspend use of the applicable Prospectus and any Issuer Free Writing Prospectus in connection with any sale or purchase of, or offer to sell or purchase, Registrable Securities, upon delivery of the notice referred to above. The Company shall immediately notify the Participating Holders upon the termination of any Demand Suspension, amend or supplement the Prospectus and any Issuer Free Writing Prospectus, if necessary, so it does not contain any untrue statement or omission and furnish to the Participating Holders such numbers of copies of the Prospectus and any Issuer Free Writing Prospectus as so amended or supplemented as the Participating Holders may reasonably request. The Company agrees, if necessary, to supplement or make amendments to the Demand Registration Statement if required by the registration form used by the Company for the applicable Registration or by the instructions applicable to such registration form or by the Securities Act or the rules or regulations promulgated thereunder, or as may reasonably be requested by any Demand Party.

(f) Underwritten Offering. If a Demand Party so requests, an offering of Registrable Securities pursuant to a Demand Registration shall be in the form of an Underwritten Offering, and such Demand Party shall have the right to select the managing underwriter or underwriters to administer the offering. If the Demand Party intends to sell the Registrable Securities covered by its demand by means of an Underwritten Offering, such Demand Party shall so advise the Company as part of its Demand Notice, and the Company shall include such information in the Demand Company Notice.

(g) Priority of Securities Registered Pursuant to Demand Registrations. If the managing underwriter or underwriters of a proposed Underwritten Offering of the Registrable Securities included in a Demand Registration advise the Board of Directors in writing that, in its

or their opinion, the number of securities requested to be included in such Demand Registration exceeds the number which can be sold in such offering without being likely to have a significant adverse effect on the price, timing or distribution of the securities offered or the market for the securities offered, the securities to be included in such Demand Registration (i) first, shall be allocated pro rata among the Institutional Investors that have requested to participate in such Demand Registration based on the relative number of Registrable Securities then held by each such Institutional Investor (provided that any securities thereby allocated to an Institutional Investor that exceed such Institutional Investor's request shall be reallocated among the remaining requesting Institutional Investors in like manner), (ii) second, and only if all the securities referred to in clause (i) have been included in such Registration, shall be allocated pro rata among the Holders (excluding the Institutional Investors, as applicable) that have requested to participate in such Demand Registration based on the relative number of Registrable Securities then held by each such Holder (provided that any securities thereby allocated to a Holder that exceed such Holder's request shall be reallocated among the remaining requesting Holders in like manner), (iii) third, and only if all the securities referred to in clauses (i) and (ii) have been included in such Registration, the number of securities that the Company proposes to include in such Registration that, in the opinion of the managing underwriter or underwriters, can be sold without having such adverse effect and (iv) fourth, and only if all of the securities referred to in clause (iii) have been included in such Registration, any other securities eligible for inclusion in such Registration that, in the opinion of the managing underwriter or underwriters, can be sold without having such adverse effect.

SECTION 2.02. Shelf Registration.

(a) Filing.

(i) Following the IPO, the Company shall use its reasonable best efforts to qualify for Registration on Form S-3 for secondary sales. Promptly following the date on which the Company becomes eligible to Register on Form S-3 (the "S-3 Eligibility Date"), the Company shall notify, in writing, the Institutional Investors of such eligibility and its intention to file and maintain a Shelf Registration Statement on Form S-3 covering the Registrable Securities held by the Institutional Investors (the "Eligibility Notice"). Promptly following receipt of such Eligibility Notice (but in no event more than ten (10) days after receipt of such Eligibility Notice), the Institutional Investors shall deliver a written notice to the Company, which notice shall specify the aggregate amount of Registrable Securities held by such Institutional Investor to be covered by such Shelf Registration Form and the intended methods of distribution thereof (the "S-3 Shelf Notice" and such Institutional Investors, the "Initial S-3 Holders"). Following delivery of the S-3 Shelf Notices, the Company (x) shall file promptly (and, in any event, within the earlier of (i) thirty (30) days of receipt of the S-3 Shelf Notices and (ii) forty (40) days after delivery of the Eligibility Notice) with the SEC such Shelf Registration Statement (which shall be an automatic Shelf Registration Statement if the Company qualifies at such time to file such a Shelf Registration Statement) relating to the offer and sale of all Registrable Securities requested for inclusion therein by the Initial S-3 Holders and, to the extent requested under Section 2.02(c), the other Holders from time to time in

accordance with the methods of distribution elected by such Holders (to the extent permitted in this Section 2.02) and set forth in the Shelf Registration Statement and (y) shall use its reasonable best efforts to cause such Shelf Registration Statement to be promptly declared effective under the Securities Act (including upon the filing thereof if the Company qualifies to file an automatic Shelf Registration Statement); provided, however, that if an Institutional Investor reasonably believes that the Company will become S-3 eligible and delivers a S-3 Shelf Notice following the IPO but prior to the S-3 Eligibility Date, the Company shall not be obligated to file (but shall be obligated to prepare) such Shelf Registration Statement on Form S-3.

(ii) Subject to the right to deliver a Shelf Notice in the manner contemplated by the first proviso below, at any time following the first anniversary of the IPO, to the extent that the Company is not eligible to file or maintain a Shelf Registration Statement on Form S-3 as contemplated by Section 2.02(a)(i), any Institutional Investor (such Institutional Investor, the "Initiating Holder") may, subject to Section 2.11, make a written request to the Company to file a Shelf Registration Statement on Form S-1 (a "Shelf Notice"), which Shelf Notice shall specify the aggregate amount of Registrable Securities of the Initiating Holder to be registered therein and the intended methods of distribution thereof. Following the delivery of a Shelf Notice, the Company (x) shall file promptly (and, in any event, within ninety (90) days following delivery of such Shelf Notice) with the SEC such Shelf Registration Statement relating to the offer and sale of all Registrable Securities requested for inclusion therein by the Initiating Holder and, to the extent requested under Section 2.02(c), the other Holders from time to time in accordance with the methods of distribution elected by such Holders (to the extent permitted in this Section 2.02) and set forth in the Shelf Registration Statement (provided, however, that if a Shelf Notice is delivered prior to the first anniversary of the IPO, the Company shall not be obligated to file (but shall be obligated to prepare) such Shelf Registration Statement prior to the first anniversary of the IPO) and (y) shall use its reasonable best efforts to cause such Shelf Registration Statement to be promptly declared effective under the Securities Act; provided, however, that any such Shelf Registration Statement request shall be deemed to be, for purposes of Section 2.11, a Demand Registration effected by the Initiating Holder and subject to the limitations set forth therein. If, on the date of any such request (or, in the event of a request that is delivered prior to the first anniversary of the IPO, on the date following the first anniversary of the IPO), the Company does not qualify to file a Shelf Registration Statement under the Securities Act, the provisions of this Section 2.02 shall not apply, and the provisions of Section 2.01 shall apply instead.

(b) Continued Effectiveness. The Company shall use its reasonable best efforts to keep any Shelf Registration Statement filed pursuant to Section 2.02(a) continuously effective under the Securities Act in order to permit the Prospectus forming a part thereof to be usable by Shelf Holders until the earliest of (i) the date as of which all Registrable Securities have been sold pursuant to the Shelf Registration Statement or another Registration Statement filed under the Securities Act (but in no event prior to the applicable period referred to in Section 4(3) of the Securities Act and Rule 174 thereunder), (ii) the date as of which each of the

Shelf Holders is permitted to sell its Registrable Securities without Registration pursuant to Rule 144 without volume limitation or other restrictions on transfer thereunder and (iii) such shorter period as the Institutional Investors with respect to such Shelf Registration shall agree in writing (such period of effectiveness, the "Shelf Period"). Subject to Section 2.02(d), the Company shall not be deemed to have used its reasonable best efforts to keep the Shelf Registration Statement effective during the Shelf Period if the Company voluntarily takes any action or omits to take any action that would result in Shelf Holders not being able to offer and sell any Registrable Securities pursuant to such Shelf Registration Statement during the Shelf Period, unless such action or omission is (x) a Shelf Suspension permitted pursuant to Section 2.02(d) or (y) required by applicable law, rule or regulation.

(c) Company Notices. Promptly upon delivery of any Shelf Notice pursuant to Section 2.02(a)(ii) (but in no event more than five (5) Business Days thereafter), the Company shall deliver a written notice of such Shelf Notice to the Institutional Investors (other than the Initiating Holder) and the Company shall include in such Shelf Registration all such Registrable Securities of such other Institutional Investors which the Company has received a written request for inclusion therein within five (5) Business Days after such written notice is delivered to such other Institutional Investors. Promptly after (i) delivery of any such written request by the other Institutional Investors or (ii) after delivery of the S-3 Shelf Notices pursuant to Section 2.02(a) (but in no event more than ten (10) Business Days after delivery of the S-3 Shelf Notices or the Shelf Notice, as applicable), the Company shall deliver a written notice of the S-3 Shelf Notices or the Shelf Notice, as applicable, to all Holders other than the Institutional Investors (which notice shall specify the Pro Rata Institutional Investor Shelf Percentage applicable to such Shelf Registration) and the Company shall include in such Shelf Registration all such Registrable Securities of such Holders which the Company has received written requests for inclusion therein within five (5) Business Days after such written notice is delivered to such Holders (each such Holder delivering such a request and the other Institutional Investors if Participating Institutional Investors, together with the Initiating Holder, if applicable, a "Shelf Holder"); provided, that, the Company shall not include in such Shelf Registration Registrable Securities of any Holder (other than an Institutional Investor) in an amount in excess of such Holder's Pro Rata Shelf Percentage. If the Company is permitted by applicable law, rule or regulation to add selling stockholders to a Shelf Registration Statement without filing a post-effective amendment, a Holder may request the inclusion of an amount of such Holder's Registrable Securities not to exceed, in the case of a Holder that is not an Institutional Investor, such Holder's Pro Rata Shelf Percentage in such Shelf Registration Statement at any time or from time to time after the filing of a Shelf Registration Statement, and the Company shall add such Registrable Securities to the Shelf Registration Statement as promptly as reasonably practicable, and such Holder shall be deemed a Shelf Holder.

(d) Suspension of Registration. If the Company shall furnish to the Shelf Holders a certificate signed by the Chief Executive Officer or equivalent senior executive officer of the Company stating that the continued use of a Shelf Registration Statement filed pursuant to Section 2.02(a) would require the Company to make an Adverse Disclosure, then the Company may suspend use of the Shelf Registration Statement (a "Shelf Suspension"); provided, however, that the Company, unless otherwise approved in writing by the Institutional Investors holding a

majority of the then-outstanding Registrable Securities held by all Institutional Investors, shall not be permitted to exercise aggregate Demand Suspensions and Shelf Suspensions more than twice, or for more than an aggregate of 90 days, in each case, during any 12-month period; provided further that in the event of a Shelf Suspension, such Shelf Suspension shall terminate at such earlier time as the Company would no longer be required to make any Adverse Disclosure. Each Shelf Holder shall keep confidential the fact that a Shelf Suspension is in effect, the certificate referred to above and its contents unless and until otherwise notified by the Company, except (A) for disclosure to such Shelf Holder's employees, agents and professional advisers who reasonably need to know such information for purposes of assisting the Holder with respect to its investment in the Company Shares and agree to keep it confidential, (B) for disclosures to the extent required in order to comply with reporting obligations to its limited partners or other direct or indirect investors who have agreed to keep such information confidential, (C) if and to the extent such matters are publicly disclosed by the Company or any of its Subsidiaries or any other Person that, to the actual knowledge of such Shelf Holder, was not subject to an obligation or duty of confidentiality to the Company and its Subsidiaries and (D) as required by law, rule or regulation. In the case of a Shelf Suspension, the Holders agree to suspend use of the applicable Prospectus and any Issuer Free Writing Prospectus in connection with any sale or purchase of, or offer to sell or purchase, Registrable Securities, upon delivery of the notice referred to above. The Company shall immediately notify the Shelf Holders upon the termination of any Shelf Suspension, amend or supplement the Prospectus and any Issuer Free Writing Prospectus, if necessary, so it does not contain any untrue statement or omission and furnish to the Shelf Holders such numbers of copies of the Prospectus and any Issuer Free Writing Prospectus as so amended or supplemented as the Shelf Holders may reasonably request. The Company agrees, if necessary, to supplement or make amendments to the Shelf Registration Statement if required by the registration form used by the Company for the applicable Registration or by the instructions applicable to such registration form or by the Securities Act or the rules or regulations promulgated thereunder, or as may reasonably be requested by any Initiating Holder.

(e) Shelf Take-Downs.

(i) An offering or sale of Registrable Securities pursuant to a Shelf Registration Statement (each, a "Shelf Take-Down") may be initiated only by an Institutional Investor (an "Initiating Shelf Take-Down Holder"). Except as set forth in Section 2.02(e)(iii) with respect to Marketed Underwritten Shelf Take-Downs, each such Initiating Shelf Take-Down Holder shall not be required to permit the offer and sale of Registrable Securities by other Shelf Holders in connection with any such Shelf Take-Down initiated by such Initiating Shelf Take-Down Holder.

(ii) Subject to Section 2.11, if the Initiating Shelf Take-Down Holder elects by written request to the Company, a Shelf Take-Down shall be in the form of an Underwritten Offering (an "Underwritten Shelf Take-Down Notice") and the Company shall amend or supplement the Shelf Registration Statement for such purpose as soon as practicable. Such Initiating Shelf Take-Down Holder shall have the right to select the managing underwriter or underwriters to administer such offering. The provisions of Section 2.01(g) shall apply to any Underwritten Offering pursuant to this Section 2.02(e).

(iii) If the plan of distribution set forth in any Underwritten Shelf Take-Down Notice includes a customary "road show" (including an "electronic road show") or other substantial marketing effort by the Company and the underwriters over a period expected to exceed 48 hours (a "Marketed Underwritten Shelf Take-Down"), promptly upon delivery of such Underwritten Shelf Take-Down Notice (but in no event more than three (3) Business Days thereafter), the Company shall promptly deliver a written notice (a "Marketed Underwritten Shelf Take-Down Notice") of such Marketed Underwritten Shelf Take-Down to all Shelf Holders (other than the Initiating Shelf Take-Down Holder), and the Company shall include in such Marketed Underwritten Shelf Take-Down all such Registrable Securities of such Shelf Holders that are Registered on such Shelf Registration Statement for which the Company has received written requests, which requests must specify the aggregate amount of such Registrable Securities of such Holder to be offered and sold pursuant to such Marketed Underwritten Shelf Take-Down, for inclusion therein within three (3) Business Days after the date that such Marketed Underwritten Shelf Take-Down Notice has been delivered.

SECTION 2.03. Piggyback Registration.

(a) Participation. If the Company at any time proposes to file a Registration Statement with respect to any offering of its equity securities for its own account or for the account of any other Persons (other than (i) a Registration under Section 2.01 or 2.02, it being understood that this clause (i) does not limit the rights of Holders to make written requests pursuant to Sections 2.01 or 2.02 or otherwise limit the applicability thereof, (ii) a Registration Statement on Form S-4 or S-8 (or such other similar successor forms then in effect under the Securities Act), (iii) a registration of securities solely relating to an offering and sale to employees, directors or consultants of the Company or its Subsidiaries pursuant to any employee stock plan or other employee benefit plan arrangement, (iv) a registration not otherwise covered by clause (ii) above pursuant to which the Company is offering to exchange its own securities for other securities, (v) a Registration Statement relating solely to dividend reinvestment or similar plans or (vi) a Shelf Registration Statement pursuant to which only the initial purchasers and subsequent transferees of debt securities of the Company or any of its Subsidiaries that are convertible or exchangeable for Company Shares and that are initially issued pursuant to Rule 144A and/or Regulation S (or any successor provisions) of the Securities Act may resell such notes and sell the Company Shares into which such notes may be converted or exchanged) (a "Company Public Sale"), then, (A) as soon as practicable (but in no event less than 30 days prior to the proposed date of filing of such Registration Statement), the Company shall give written notice of such proposed filing to the Institutional Investors, and such notice shall offer each Institutional Investor the opportunity to Register under such Registration Statement such number of Registrable Securities as such Institutional Investor may request in writing delivered to the Company within ten (10) days of delivery of such written notice by the Company, and (B) subject to Section 2.03(c), as soon as practicable after the expiration of such 10-day period (but in no event less than fifteen (15) days prior to the proposed date of filing of such Registration Statement), the Company shall give written notice of such proposed filing to the Holders (other than the Institutional Investors), and such notice shall offer each such Holder the opportunity to Register under such Registration Statement such number of Registrable Securities as such Holder

may request in writing within ten (10) days of delivery of such written notice by the Company. Subject to Sections 2.03(b) and (c), the Company shall include in such Registration Statement all such Registrable Securities that are requested by Holders to be included therein in compliance with the immediately foregoing sentence (a "Piggyback Registration"); provided that if at any time after giving written notice of its intention to Register any equity securities and prior to the effective date of the Registration Statement filed in connection with such Piggyback Registration, the Company shall determine for any reason not to Register or to delay Registration of the equity securities covered by such Piggyback Registration, the Company shall give written notice of such determination to each Holder that had requested to Register its, his or her Registrable Securities in such Registration Statement and, thereupon, (1) in the case of a determination not to Register, shall be relieved of its obligation to Register any Registrable Securities in connection with such Registration (but not from its obligation to pay the Registration Expenses in connection therewith, to the extent payable), without prejudice, however, to the rights of the Institutional Investors to request that such Registration be effected as a Demand Registration under Section 2.01, and (2) in the case of a determination to delay Registering, in the absence of a request by the Institutional Investors to request that such Registration be effected as a Demand Registration under Section 2.01, shall be permitted to delay Registering any Registrable Securities, for the same period as the delay in Registering the other equity securities covered by such Piggyback Registration. If the offering pursuant to such Registration Statement is to be underwritten, the Company shall so advise the Holders as a part of the written notice given pursuant this Section 2.03(a), and each Holder making a request for a Piggyback Registration pursuant to this Section 2.03(a) must, and the Company shall make such arrangements with the managing underwriter or underwriters so that each such Holder may, participate in such Underwritten Offering, subject to the conditions of Section 2.03(b) and (c). If the offering pursuant to such Registration Statement is to be on any other basis, the Company shall so advise the Holders as part of the written notice given pursuant to this Section 2.03(a), and each Holder making a request for a Piggyback Registration pursuant to this Section 2.03(a) must, and the Company shall make such arrangements so that each such Holder may, participate in such offering on such basis, subject to the conditions of Section 2.03(b) and (c). Each Holder shall be permitted to withdraw all or part of its Registrable Securities from a Piggyback Registration at any time prior to the effectiveness of such Registration Statement.

(b) Priority of Piggyback Registration. If the managing underwriter or underwriters of any proposed Underwritten Offering of Registrable Securities included in a Piggyback Registration informs the Company and the Holders that have requested to participate in such Piggyback Registration in writing that, in its or their opinion, the number of securities which such Holders and any other Persons intend to include in such offering exceeds the number which can be sold in such offering without being likely to have a significant adverse effect on the price, timing or distribution of the securities offered or the market for the securities offered, then the securities to be included in such Registration shall be (i) first, 100% of the securities that the Company or (subject to Section 2.07) any Person (other than a Holder) exercising a contractual right to demand Registration, as the case may be, proposes to sell, (ii) second, and only if all the securities referred to in clause (i) have been included, the number of Registrable Securities that, in the opinion of such managing underwriter or underwriters, can be sold without having such adverse effect in such Registration, which such number shall be allocated pro rata among the

Institutional Investors that have requested to participate in such Registration based on the relative number of Registrable Securities then held by each such Institutional Investor (provided that any securities thereby allocated to an Institutional Investor that exceed such Institutional Investor's request shall be reallocated among the remaining requesting Institutional Investors in like manner), (iii) third, and only if all the securities referred to in clause (ii) have been included, the number of Registrable Securities that, in the opinion of such managing underwriter or underwriters, can be sold without having such adverse effect in such Registration, which such number shall be allocated pro rata among the Holders (excluding the Institutional Investors) that have requested to participate in such Registration based on the relative number of Registrable Securities then held by each such Holder (provided that any securities thereby allocated to a Holder that exceed such Holder's request shall be reallocated among the remaining requesting Holders in like manner) and (iv) fourth, and only if all of the Registrable Securities referred to in clause (iii) have been included in such Registration, any other securities eligible for inclusion in such Registration that, in the opinion of the managing underwriter or underwriters, can be sold without having such adverse effect in such Registration.

(c) Restrictions on Non-Institutional Investor Holders. Notwithstanding any provisions contained herein, Holders other than the Institutional Investor shall not be able to exercise the right to a Piggyback Registration unless at least one Institutional Investor exercises its rights with respect to such Piggyback Registration.

(d) No Effect on Demand Registrations. No Registration of Registrable Securities effected pursuant to a request under this Section 2.03 shall be deemed to have been effected pursuant to Sections 2.01 or 2.02 or shall relieve the Company of its obligations under Sections 2.01 or 2.02.

SECTION 2.04. Black-out Periods.

(a) Black-out Periods for Holders. In the event of a Company Public Sale of the Company's equity securities in an Underwritten Offering, each of the Holders agrees, if requested by the managing underwriter or underwriters in such Underwritten Offering, not to (1) offer for sale, sell, pledge, or otherwise dispose of (or enter into any transaction or device that is designed to, or could be expected to, result in the disposition by any person at any time in the future of) any Company Shares (including Company Shares that may be deemed to be beneficially owned by the undersigned in accordance with the rules and regulations of the SEC and Company Shares that may be issued upon exercise of any options or warrants) or securities convertible into or exercisable or exchangeable for Company Shares, (2) enter into any swap or other derivatives transaction that transfers to another, in whole or in part, any of the economic benefits or risks of ownership of Company Shares, whether any such transaction described in clause (1) or (2) above is to be settled by delivery of Company Shares or other securities, in cash or otherwise, (3) make any demand for or exercise any right or cause to be filed a Registration Statement, including any amendments thereto, with respect to the registration of any Company Shares or securities convertible into or exercisable or exchangeable for Company Shares or any other securities of the Company or (4) publicly disclose the intention to do any of the foregoing, in each case, during the period beginning seven (7) days before and ending 180 days (in the

event of the IPO) or 90 days (in the event of any other Company Public Sale) (or, in each case, such other period as may be reasonably requested by the Company or the managing underwriter or underwriters to accommodate regulatory restrictions on (i) the publication or other distribution of research reports and (ii) analyst recommendations and opinions, including, but not limited to, the restrictions contained in the FINRA rules or any successor provisions or amendments thereto) after the date of the underwriting agreement entered into in connection with such Company Public Sale, to the extent timely notified in writing by the Company or the managing underwriter or underwriters; provided, that no Holder shall be subject to any such black-out period of longer duration than that applicable to any Institutional Investor or any director or executive officer who holds Registrable Securities. If requested by the managing underwriter or underwriters of any such Company Public Sale (and, with respect to any such Company Public Sale other than the IPO, if and only if each Institutional Investor agrees to such request), the Holders shall execute a separate agreement to the foregoing effect. The Company may impose stop-transfer instructions with respect to the Company Shares (or other securities) subject to the foregoing restriction until the end of the period referenced above.

(b) Black-out Period for the Company and Others. In the case of an offering of Registrable Securities pursuant to Section 2.01 or 2.02 that is a Marketed Underwritten Offering, the Company and each of the Holders agree, if requested by a Participating Institutional Investor that is not a New Institutional Investor (unless a New Institutional Investor is the Demand Party in an offering of Registrable Securities pursuant to Section 2.01) or the managing underwriter or underwriters with respect to such Marketed Underwritten Offering, not to (1) offer for sale, sell, pledge, or otherwise dispose of (or enter into any transaction or device that is designed to, or could be expected to, result in the disposition by any person at any time in the future of) any Company Shares (including Company Shares that may be deemed to be beneficially owned by the undersigned in accordance with the rules and regulations of the SEC and Company Shares that may be issued upon exercise of any options or warrants) or securities convertible into or exercisable or exchangeable for Company Shares, (2) enter into any swap or other derivatives transaction that transfers to another, in whole or in part, any of the economic benefits or risks of ownership of Company Shares, whether any such transaction described in clause (1) or (2) above is to be settled by delivery of Company Shares or other securities, in cash or otherwise, (3) make any demand for or exercise any right or cause to be filed a Registration Statement, including any amendments thereto, with respect to the registration of any Company Shares or securities convertible into or exercisable or exchangeable for Company Shares or any other securities of the Company or (4) publicly disclose the intention to do any of the foregoing, in each case, during the period beginning seven (7) days before, and ending 90 days (or such lesser period as may be agreed by such Participating Institutional Investor or, if applicable, the managing underwriter or underwriters) (or such other period as may be reasonably requested by such Participating Institutional Investor or the managing underwriter or underwriters to accommodate regulatory restrictions on (i) the publication or other distribution of research reports and (ii) analyst recommendations and opinions, including, but not limited to, the restrictions contained in the FINRA rules or any successor provisions or amendments thereto) after, the date of the underwriting agreement entered into in connection with such Marketed Underwritten Offering, to the extent timely notified in writing by such Participating Institutional Investor or the managing underwriter or underwriters, as the case may be; provided that no

Holder shall be subject to any such black-out period of longer duration than that applicable to such Participating Institutional Investor; and provided, further that in the case of an offering of Registrable Securities pursuant to Section 2.01 where the Demand Party is a New Institutional Investor, WP shall only be subject to any such black-out period on one occasion and thereafter WP shall not be subject to any such black-out period in the case of an offering of Registrable Securities pursuant to Section 2.01 where the Demand Party is a New Institutional Investor. Notwithstanding the foregoing, the Company may effect a public sale or distribution of securities of the type described above and during the periods described above if such sale or distribution is made pursuant to Registrations on Form S-4 or S-8 or any successor form to such Forms or as part of any Registration of securities for offering and sale to employees, directors or consultants of the Company and its Subsidiaries pursuant to any employee stock plan or other employee benefit plan arrangement. The Company agrees to use its reasonable best efforts to obtain from each of its directors and officers and each other holder of restricted securities of the Company which securities are the same as or similar to the Registrable Securities being Registered, or any restricted securities convertible into or exchangeable or exercisable for any of such securities, an agreement not to effect any public sale or distribution of such securities during any such period referred to in this paragraph, except as part of any such Registration, if permitted. Without limiting the foregoing (but subject to Section 2.07), if after the date hereof the Company or any of its Subsidiaries grants any Person (other than a Holder) any rights to demand or participate in a Registration, the Company shall, and shall cause its Subsidiaries to, provide that the agreement with respect thereto shall include such Person's agreement to comply with any black-out period required by this Section as if it were a Holder hereunder. If requested by the managing underwriter or underwriters of any such Marketed Underwritten Offering, the Holders shall execute a separate agreement to the foregoing effect. The Company may impose stop-transfer instructions with respect to the Company Shares (or other securities) subject to the foregoing restriction until the end of the period referenced above.

SECTION 2.05. Registration Procedures.

(a) In connection with the Company's Registration obligations under Sections 2.01, 2.02 and 2.03 and subject to the applicable terms and conditions set forth therein, the Company shall use its reasonable best efforts to effect such Registration to permit the sale of such Registrable Securities in accordance with the intended method or methods of distribution thereof as expeditiously as reasonably practicable, and in connection therewith the Company shall:

(i) prepare the required Registration Statement including all exhibits and financial statements required under the Securities Act to be filed therewith, and before filing a Registration Statement, Prospectus or any Issuer Free Writing Prospectus, or any amendments or supplements thereto, (x) furnish to the underwriters, if any, and the Participating Institutional Investors, if any, copies of all documents prepared to be filed, which documents shall be subject to the review of such underwriters and the Participating Institutional Investors and their respective counsel and (y) except in the case of a Registration under Section 2.03, not file any Registration Statement or Prospectus or

amendments or supplements thereto to which any Participating Institutional Investor or the underwriters, if any, shall reasonably object;

(ii) as promptly as practicable file with the SEC a Registration Statement relating to the Registrable Securities including all exhibits and financial statements required by the SEC to be filed therewith, and use its reasonable best efforts to cause such Registration Statement to become effective under the Securities Act as soon as practicable;

(iii) prepare and file with the SEC such pre- and post-effective amendments to such Registration Statement, supplements to the Prospectus and such amendments or supplements to any Issuer Free Writing Prospectus as may be (x) reasonably requested by any Participating Institutional Investor, (y) reasonably requested by any other Participating Holder (to the extent such request relates to information relating to such Participating Holder), or (z) necessary to keep such Registration effective for the period of time required by this Agreement, and comply with provisions of the applicable securities laws with respect to the sale or other disposition of all securities covered by such Registration Statement during such period in accordance with the intended method or methods of disposition by the sellers thereof set forth in such Registration Statement;

(iv) promptly notify the Participating Holders and the managing underwriter or underwriters, if any, and (if requested) confirm such advice in writing and provide copies of the relevant documents, as soon as reasonably practicable after notice thereof is received by the Company (A) when the applicable Registration Statement or any amendment thereto has been filed or becomes effective, and when the applicable Prospectus or Issuer Free Writing Prospectus or any amendment or supplement thereto has been filed, (B) of any written comments by the SEC or any request by the SEC or any other federal or state governmental authority for amendments or supplements to such Registration Statement, Prospectus or Issuer Free Writing Prospectus or for additional information, (C) of the issuance by the SEC of any stop order suspending the effectiveness of such Registration Statement or any order by the SEC or any other regulatory authority preventing or suspending the use of any preliminary or final Prospectus or any Issuer Free Writing Prospectus or the initiation or threatening of any proceedings for such purposes, (D) if, at any time, the representations and warranties of the Company in any applicable underwriting agreement cease to be true and correct in all material respects, (E) of the receipt by the Company of any notification with respect to the suspension of the qualification of the Registrable Securities for offering or sale in any jurisdiction and (F) of the receipt by the Company of any notification with respect to the initiation or threatening of any proceeding for the suspension of the qualification of the Registrable Securities for offering or sale in any jurisdiction;

(v) promptly notify the Participating Holders and the managing underwriter or underwriters, if any, when the Company becomes aware of the happening of any event as a result of which the applicable Registration Statement, the Prospectus included in such Registration Statement (as then in effect) or any Issuer Free Writing Prospectus contains

any untrue statement of a material fact or omits to state a material fact necessary to make the statements therein (in the case of such Prospectus, any preliminary Prospectus or any Issuer Free Writing Prospectus, in light of the circumstances under which they were made) not misleading, when any Issuer Free Writing Prospectus includes information that may conflict with the information contained in the Registration Statement, or, if for any other reason it shall be necessary during such time period to amend or supplement such Registration Statement, Prospectus or Issuer Free Writing Prospectus in order to comply with the Securities Act and, in either case as promptly as reasonably practicable thereafter, prepare and file with the SEC, and furnish without charge to the Participating Holders and the managing underwriter or underwriters, if any, an amendment or supplement to such Registration Statement, Prospectus or Issuer Free Writing Prospectus which shall correct such misstatement or omission or effect such compliance;

(vi) use its reasonable best efforts to prevent, or obtain the withdrawal of, any stop order or other order suspending the use of any preliminary or final Prospectus or any Issuer Free Writing Prospectus;

(vii) promptly incorporate in a Prospectus supplement, Issuer Free Writing Prospectus or post-effective amendment to the applicable Registration Statement such information as the managing underwriter or underwriters and the Participating Institutional Investor(s) agree should be included therein relating to the plan of distribution with respect to such Registrable Securities, and make all required filings of such Prospectus supplement, Issuer Free Writing Prospectus or post-effective amendment as soon as reasonably practicable after being notified of the matters to be incorporated in such Prospectus supplement, Issuer Free Writing Prospectus or post-effective amendment;

(viii) furnish to each Participating Holder and each underwriter, if any, without charge, as many conformed copies as such Participating Holder or underwriter may reasonably request of the applicable Registration Statement and any amendment or post-effective amendment thereto, including financial statements and schedules, all documents incorporated therein by reference and all exhibits (including those incorporated by reference);

(ix) deliver to each Participating Holder and each underwriter, if any, without charge, as many copies of the applicable Prospectus (including each preliminary Prospectus), any Issuer Free Writing Prospectus and any amendment or supplement thereto as such Participating Holder or underwriter may reasonably request (it being understood that the Company consents to the use of such Prospectus, any Issuer Free Writing Prospectus and any amendment or supplement thereto by such Participating Holder and the underwriters, if any, in connection with the offering and sale of the Registrable Securities thereby) and such other documents as such Participating Holder or underwriter may reasonably request in order to facilitate the disposition of the Registrable Securities by such Participating Holder or underwriter;

(x) on or prior to the date on which the applicable Registration Statement is declared effective, use its reasonable best efforts to register or qualify, and cooperate with the Participating Holders, the managing underwriter or underwriters, if any, and their respective counsel, in connection with the registration or qualification of such Registrable Securities for offer and sale under the securities or "Blue Sky" laws of each state and other jurisdiction of the United States as any Participating Holder or managing underwriter or underwriters, if any, or their respective counsel reasonably request in writing and do any and all other acts or things reasonably necessary or advisable to keep such registration or qualification in effect for such period as required by Section 2.01(c) or 2.02(b), whichever is applicable, provided that the Company shall not be required to qualify generally to do business in any jurisdiction where it is not then so qualified or to take any action which would subject it to taxation or general service of process in any such jurisdiction where it is not then so subject;

(xi) cooperate with the Participating Holders and the managing underwriter or underwriters, if any, to facilitate the timely preparation and delivery of certificates representing Registrable Securities to be sold and not bearing any restrictive legends, and enable such Registrable Securities to be in such denominations and registered in such names as the managing underwriters may request at least two (2) Business Days prior to any sale of Registrable Securities to the underwriters;

(xii) use its reasonable best efforts to cause the Registrable Securities covered by the applicable Registration Statement to be registered with or approved by such other governmental agencies or authorities as may be necessary to enable the seller or sellers thereof or the underwriter or underwriters, if any, to consummate the disposition of such Registrable Securities;

(xiii) not later than the effective date of the applicable Registration Statement, provide a CUSIP number for all Registrable Securities and provide the applicable transfer agent with printed certificates for the Registrable Securities which are in a form eligible for deposit with The Depository Trust Company;

(xiv) make such representations and warranties to the Participating Holders and the underwriters or agents, if any, in form, substance and scope as are customarily made by issuers in secondary underwritten public offerings;

(xv) enter into such customary agreements (including underwriting and indemnification agreements) and take all such other actions as any Participating Institutional Investor or the managing underwriter or underwriters, if any, reasonably request in order to expedite or facilitate the registration and disposition of such Registrable Securities;

(xvi) obtain for delivery to the Participating Holders and to the underwriter or underwriters, if any, an opinion or opinions from counsel for the Company dated the effective date of the Registration Statement or, in the event of an Underwritten Offering, the date of the closing under the underwriting agreement, in customary form, scope and

substance, which opinions shall be reasonably satisfactory to such Participating Holders or underwriters, as the case may be, and their respective counsel;

(xvii) in the case of an Underwritten Offering, obtain for delivery to the Company and the managing underwriter or underwriters, with copies to the Participating Holders, a cold comfort letter from the Company's independent certified public accountants in customary form and covering such matters of the type customarily covered by cold comfort letters as the managing underwriter or underwriters reasonably request, dated the date of execution of the underwriting agreement and brought down to the closing under the underwriting agreement;

(xviii) cooperate with each Participating Holder and each underwriter, if any, participating in the disposition of such Registrable Securities and their respective counsel in connection with any filings required to be made with the FINRA;

(xix) use its reasonable best efforts to comply with all applicable securities laws and make available to its security holders, as soon as reasonably practicable, an earnings statement satisfying the provisions of Section 11(a) of the Securities Act and the rules and regulations promulgated thereunder;

(xx) provide and cause to be maintained a transfer agent and registrar for all Registrable Securities covered by the applicable Registration Statement from and after a date not later than the effective date of such Registration Statement;

(xxi) use its reasonable best efforts to cause all Registrable Securities covered by the applicable Registration Statement to be listed on each securities exchange on which any of the Company Shares are then listed or quoted and on each inter-dealer quotation system on which any of the Company Shares are then quoted;

(xxii) make available upon reasonable notice at reasonable times and for reasonable periods for inspection by any Participating Institutional Investor, by any underwriter participating in any disposition to be effected pursuant to such Registration Statement and by any attorney, accountant or other agent retained by such Participating Institutional Investor(s) or any such underwriter, all pertinent financial and other records, pertinent corporate documents and properties of the Company, and cause all of the Company's officers, directors and employees and the independent public accountants who have certified its financial statements to make themselves available to discuss the business of the Company and to supply all information reasonably requested by any such Person in connection with such Registration Statement as shall be necessary to enable them to exercise their due diligence responsibility; provided, that, any such Person gaining access to information regarding the Company pursuant to this Section 2.05(a)(xxii) shall agree to hold in strict confidence and shall not make any disclosure or use any information regarding the Company that the Company determines in good faith to be confidential, and of which determination such Person is notified, unless (w) the release of such information is requested or required by law or by deposition, interrogatory, requests for information or documents by a governmental entity, subpoena or similar process,

(x) such information is or becomes publicly known other than through a breach of this or any other agreement of which such Person has actual knowledge, (y) such information is or becomes available to such Person on a non-confidential basis from a source other than the Company or (z) such information is independently developed by such Person; and

(xxiii) in the case of an Underwritten Offering, cause the senior executive officers of the Company to participate in the customary "road show" presentations that may be reasonably requested by the managing underwriter or underwriters in any such Underwritten Offering and otherwise to facilitate, cooperate with, and participate in each proposed offering contemplated herein and customary selling efforts related thereto.

(b) The Company may require each Participating Holder to furnish to the Company such information regarding the distribution of such securities and such other information relating to such Participating Holder and its ownership of Registrable Securities as the Company may from time to time reasonably request in writing. Each Participating Holder agrees to furnish such information to the Company and to cooperate with the Company as reasonably necessary to enable the Company to comply with the provisions of this Agreement.

(c) Each Participating Holder agrees that, upon delivery of any notice by the Company of the happening of any event of the kind described in Section 2.05(a)(iv)(C), (D), or (E) or Section 2.05(a)(v), such Participating Holder will forthwith discontinue disposition of Registrable Securities pursuant to such Registration Statement until (i) such Participating Holder's receipt of the copies of the supplemented or amended Prospectus or Issuer Free Writing Prospectus contemplated by Section 2.05(a)(v), (ii) such Participating Holder is advised in writing by the Company that the use of the Prospectus or Issuer Free Writing Prospectus, as the case may be, may be resumed, (iii) such Participating Holder is advised in writing by the Company of the termination, expiration or cessation of such order or suspension referenced in Section 2.05(a)(iv)(C) or (E) or (iv) such Participating Holder is advised in writing by the Company that the representations and warranties of the Company in such applicable underwriting agreement are true and correct in all material respects. If so directed by the Company, such Participating Holder shall deliver to the Company (at the Company's expense) all copies, other than permanent file copies then in such Participating Holder's possession, of the Prospectus or any Issuer Free Writing Prospectus covering such Registrable Securities current at the time of delivery of such notice. In the event the Company shall give any such notice, the period during which the applicable Registration Statement is required to be maintained effective shall be extended by the number of days during the period from and including the date of the giving of such notice to and including the date when each seller of Registrable Securities covered by such Registration Statement either receives the copies of the supplemented or amended Prospectus or Issuer Free Writing Prospectus contemplated by Section 2.05(a)(v) or is advised in writing by the Company that the use of the Prospectus or Issuer Free Writing Prospectus may be resumed.

SECTION 2.06. Underwritten Offerings.

(a) Demand and Shelf Registrations. If requested by the underwriters for any Underwritten Offering requested by any Participating Institutional Investor pursuant to a

Registration under Section 2.01 or Section 2.02, the Company shall enter into an underwriting agreement with such underwriters for such offering, such agreement to be reasonably satisfactory in substance and form to the Company, each Participating Institutional Investor and the underwriters, and to contain such representations and warranties by the Company and such other terms as are generally prevailing in agreements of that type, including indemnities no less favorable to the recipient thereof than those provided in Section 2.09. Each Participating Institutional Investor shall cooperate with the Company in the negotiation of such underwriting agreement and shall give consideration to the reasonable suggestions of the Company regarding the form thereof. The Participating Holders shall be parties to such underwriting agreement, which underwriting agreement shall (i) contain such representations and warranties by, and the other agreements on the part of, the Company to and for the benefit of such Participating Holders as are customarily made by issuers to selling stockholders in secondary underwritten public offerings and (ii) provide that any or all of the conditions precedent to the obligations of such underwriters under such underwriting agreement also shall be conditions precedent to the obligations of such Participating Holders. Any such Participating Holder shall not be required to make any representations or warranties to or agreements with the Company or the underwriters in connection with such underwriting agreement other than representations, warranties or agreements regarding such Participating Holder, such Participating Holder's title to the Registrable Securities, such Participating Holder's authority to sell the Registrable Securities, such Participating Holder's intended method of distribution, absence of liens with respect to the Registrable Securities, enforceability of the applicable underwriting agreement as against such Participating Holder, receipt of all consents and approvals with respect to the entry into such underwriting agreement and the sale of such Registrable Securities and any other representations required to be made by such Participating Holder under applicable law, rule or regulation, and the aggregate amount of the liability of such Participating Holder in connection with such underwriting agreement shall not exceed such Participating Holder's net proceeds from such Underwritten Offering.

(b) Piggyback Registrations. If the Company proposes to register any of its securities under the Securities Act as contemplated by Section 2.03 and such securities are to be distributed in an Underwritten Offering through one or more underwriters, the Company shall, if requested by any Holder pursuant to Section 2.03 and subject to the provisions of Sections 2.03(b) and (c), use its reasonable best efforts to arrange for such underwriters to include on the same terms and conditions that apply to the other sellers in such Registration all the Registrable Securities to be offered and sold by such Holder among the securities of the Company to be distributed by such underwriters in such Registration. The Participating Holders shall be parties to the underwriting agreement between the Company and such underwriters, which underwriting agreement shall (i) contain such representations and warranties by, and the other agreements on the part of, the Company to and for the benefit of such Participating Holders as are customarily made by issuers to selling stockholders in secondary underwritten public offerings and (ii) provide that any or all of the conditions precedent to the obligations of such underwriters under such underwriting agreement also shall be conditions precedent to the obligations of such Participating Holders. Any such Participating Holder shall not be required to make any representations or warranties to, or agreements with the Company or the underwriters in connection with such underwriting agreement other than representations, warranties or

agreements regarding such Participating Holder, such Participating Holder's title to the Registrable Securities, such Participating Holder's authority to sell the Registrable Securities, such Holder's intended method of distribution, absence of liens with respect to the Registrable Securities, enforceability of the applicable underwriting agreement as against such Participating Holder, receipt of all consents and approvals with respect to the entry into such underwriting agreement and the sale of such Registrable Securities or any other representations required to be made by such Participating Holder under applicable law, rule or regulation, and the aggregate amount of the liability of such Participating Holder in connection with such underwriting agreement shall not exceed such Participating Holder's net proceeds from such Underwritten Offering.

(c) Participation in Underwritten Registrations. Subject to the provisions of Sections 2.06(a) and (b) above, no Person may participate in any Underwritten Offering hereunder unless such Person (i) agrees to sell such Person's securities on the basis provided in any underwriting arrangements approved by the Persons entitled to approve such arrangements and (ii) completes and executes all questionnaires, powers of attorney, indemnities, underwriting agreements and other documents required under the terms of such underwriting arrangements.

(d) Price and Underwriting Discounts. In the case of an Underwritten Offering under Section 2.01 or 2.02, the price, underwriting discount and other financial terms for the Registrable Securities shall be determined by the Institutional Investor initiating such Underwritten Offering.

SECTION 2.07. No Inconsistent Agreements; Additional Rights. The Company is not currently a party to, and shall not hereafter enter into without the prior written consent of the Institutional Investors holding a majority of the then-outstanding Registrable Securities held by all Institutional Investors, any agreement with respect to its securities that is inconsistent with the rights granted to the Holders by this Agreement, including allowing any other holder or prospective holder of any securities of the Company (a) registration rights in the nature or substantially in the nature of those set forth in Section 2.01, Section 2.02 or Section 2.03 that would have priority over the Registrable Securities with respect to the inclusion of such securities in any Registration (except to the extent such registration rights are solely related to registrations of the type contemplated by Section 2.03(a)(ii) through (iv)) or (b) demand registration rights in the nature or substantially in the nature of those set forth in Section 2.01 or Section 2.02 that are exercisable prior to such time as the Institutional Investors can first exercise their rights under Section 2.01 or Section 2.02.

SECTION 2.08. Registration Expenses. All expenses incident to the Company's performance of or compliance with this Agreement shall be paid by the Company, including (i) all registration and filing fees, and any other fees and expenses associated with filings required to be made with the SEC, FINRA and if applicable, the fees and expenses of any "qualified independent underwriter," as such term is defined in Rule 2720 of the National Association of Securities Dealers, Inc. (or any successor provision), and of its counsel, (ii) all fees and expenses in connection with compliance with any securities or "Blue Sky" laws (including fees and disbursements of counsel for the underwriters in connection with "Blue Sky"

qualifications of the Registrable Securities), (iii) all printing, duplicating, word processing, messenger, telephone, facsimile and delivery expenses (including expenses of printing certificates for the Registrable Securities in a form eligible for deposit with The Depository Trust Company and of printing Prospectuses and Issuer Free Writing Prospectuses), (iv) all fees and disbursements of counsel for the Company and of all independent certified public accountants of the Company (including the expenses of any special audit and cold comfort letters required by or incident to such performance), (v) Securities Act liability insurance or similar insurance if the Company so desires or the underwriters so require in accordance with then-customary underwriting practice, (vi) all fees and expenses incurred in connection with the listing of Registrable Securities on any securities exchange or quotation of the Registrable Securities on any inter-dealer quotation system, (vii) all applicable rating agency fees with respect to the Registrable Securities, (viii) all reasonable fees and disbursements of one legal counsel and one accounting firm as selected by the holders of a majority of the Registrable Securities included in such Registration, (ix) any reasonable fees and disbursements of underwriters customarily paid by issuers or sellers of securities, (x) all fees and expenses of any special experts or other Persons retained by the Company in connection with any Registration, (xi) all of the Company's internal expenses (including all salaries and expenses of its officers and employees performing legal or accounting duties), (xii) all expenses related to the "road-show" for any Underwritten Offering, including all travel, meals and lodging and (xiii) any other fees and disbursements customarily paid by the issuers of securities. All such expenses are referred to herein as "Registration Expenses." The Company shall not be required to pay any underwriting discounts and commissions and transfer taxes, if any, attributable to the sale of Registrable Securities.

SECTION 2.09. Indemnification.

(a) Indemnification by the Company. The Company agrees to indemnify and hold harmless, to the full extent permitted by law, each of the Holders, each of their respective direct or indirect partners, members or shareholders and each of such partner's, member's or shareholder's partners, members or shareholders and, with respect to all of the foregoing Persons, each of their respective Affiliates, employees, directors, officers, trustees or agents and each Person who controls (within the meaning of the Securities Act or the Exchange Act) such Persons and each of their respective Representatives from and against any and all losses, penalties, judgments, suits, costs, claims, damages, liabilities and expenses, joint or several (including reasonable costs of investigation and legal expenses) (each, a "Loss" and collectively, "Losses") arising out of or based upon (i) any untrue or alleged untrue statement of a material fact contained in any Registration Statement under which such Registrable Securities were Registered under the Securities Act (including any final, preliminary or summary Prospectus contained therein or any amendment or supplement thereto or any documents incorporated by reference therein), any Issuer Free Writing Prospectus or amendment or supplement thereto, or any other disclosure document produced by or on behalf of the Company or any of its Subsidiaries including reports and other documents filed under the Exchange Act, (ii) any omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein (in the case of a Prospectus, preliminary Prospectus or Issuer Free Writing Prospectus, in light of the circumstances under which they were made) not misleading, (iii) any violation or alleged violation by the Company of any federal, state or

common law rule or regulation applicable to the Company or any of its Subsidiaries in connection with any such registration, qualification, compliance or sale of Registrable Securities, (iv) any failure to register or qualify Registrable Securities in any state where the Company or its agents have affirmatively undertaken or agreed in writing that the Company (the undertaking of any underwriter being attributed to the Company) will undertake such registration or qualification on behalf of the Holders of such Registrable Securities (provided, that, in such instance the Company shall not be so liable if it has undertaken its reasonable best efforts to so register or qualify such Registrable Securities) or (v) any actions or inactions or proceedings in respect of the foregoing whether or not such indemnified party is a party thereto, and the Company will reimburse, as incurred, each such Holder and each of their respective direct or indirect partners, members or shareholders and each of such partner's, member's or shareholder's partners members or shareholders and, with respect to all of the foregoing Persons, each of their respective Affiliates, employees, directors, officers, trustees or agents and controlling Persons and each of their respective Representatives, for any legal and any other expenses reasonably incurred in connection with investigating or defending any such claim, loss, damage, liability or action; provided, that, the Company shall not be liable to any particular indemnified party to the extent that any such Loss arises out of or is based upon (A) an untrue statement or alleged untrue statement or omission or alleged omission made in any such Registration Statement or other document in reliance upon and in conformity with written information furnished to the Company by such indemnified party expressly for use in the preparation thereof or (B) an untrue statement or omission in a preliminary Prospectus relating to Registrable Securities, if a Prospectus (as then amended or supplemented) that would have cured the defect was furnished to the indemnified party from whom the Person asserting the claim giving rise to such Loss purchased Registrable Securities at least five (5) days prior to the written confirmation of the sale of the Registrable Securities to such Person and a copy of such Prospectus (as amended and supplemented) was not sent or given by or on behalf of such indemnified party to such Person at or prior to the written confirmation of the sale of the Registrable Securities to such Person. This indemnity shall be in addition to any liability the Company may otherwise have. Such indemnity shall remain in full force and effect regardless of any investigation made by or on behalf of such Holder or any indemnified party and shall survive the transfer of such securities by such Holder. The Company shall also indemnify underwriters, selling brokers, dealer managers and similar securities industry professionals participating in the distribution, their officers and directors and each Person who controls such Persons (within the meaning of the Securities Act and the Exchange Act) to the same extent as provided above with respect to the indemnification of the indemnified parties.

(b) Indemnification by the Participating Holders. Each Participating Holder agrees (severally and not jointly) to indemnify and hold harmless, to the fullest extent permitted by law, the Company, its directors and officers and each Person who controls the Company (within the meaning of the Securities Act or the Exchange Act), and each other Holder, each of such other Holder's respective direct or indirect partners, members or shareholders and each of such partner's, member's or shareholder's partners, members or shareholders and, with respect to all of the foregoing Persons, each of their respective Affiliates, employees, directors, officers, trustees or agents and each Person who controls (within the meaning of the Securities Act or the Exchange Act) such Persons and each of their respective Representatives from and against any

Losses resulting from (i) any untrue statement of a material fact in any Registration Statement under which such Registrable Securities were Registered under the Securities Act (including any final, preliminary or summary Prospectus contained therein or any amendment or supplement thereto or any documents incorporated by reference therein) or any Issuer Free Writing Prospectus or amendment or supplement thereto, or (ii) any omission to state therein a material fact required to be stated therein or necessary to make the statements therein (in the case of a Prospectus, preliminary Prospectus or Issuer Free Writing Prospectus, in light of the circumstances under which they were made) not misleading, in each case to the extent, but only to the extent, that such untrue statement or omission is contained in any information furnished in writing by such Holder to the Company specifically for inclusion in such Registration Statement and has not been corrected in a subsequent writing prior to or concurrently with the sale of the Registrable Securities to the Person asserting the claim, in each case to the extent, but only to the extent, that such untrue statement (or alleged untrue statement) or omission (or alleged omission) was made in such Registration Statement, prospectus, offering circular, Issuer Free Writing Prospectus or other document, in reliance upon and in conformity with written information furnished to the Company by such Holder expressly for use therein. In no event shall the liability of such Holder hereunder be greater in amount than the dollar amount of the net proceeds received by such Holder under the sale of Registrable Securities giving rise to such indemnification obligation.

(c) Conduct of Indemnification Proceedings. Any Person entitled to indemnification under this Section 2.09 shall (i) give prompt written notice to the indemnifying party of any claim with respect to which it seeks indemnification (provided, that, any delay or failure to so notify the indemnifying party shall relieve the indemnifying party of its obligations hereunder only to the extent, if at all, that it is actually and materially prejudiced by reason of such delay or failure) and (ii) permit such indemnifying party to assume the defense of such claim with counsel reasonably satisfactory to the indemnified party; provided, that, any Person entitled to indemnification hereunder shall have the right to select and employ separate counsel and to participate in the defense of such claim, but the fees and expenses of such counsel shall be at the expense of such Person unless (A) the indemnifying party has agreed in writing to pay such fees or expenses, (B) the indemnifying party shall have failed to assume the defense of such claim within a reasonable time after delivery of notice of such claim from the Person entitled to indemnification hereunder and employ counsel reasonably satisfactory to such Person, (C) the indemnified party has reasonably concluded (based upon advice of its counsel) that there may be legal defenses available to it or other indemnified parties that are different from or in addition to those available to the indemnifying party, or (D) in the reasonable judgment of any such Person (based upon advice of its counsel) a conflict of interest may exist between such Person and the indemnifying party with respect to such claims (in which case, if the Person notifies the indemnifying party in writing that such Person elects to employ separate counsel at the expense of the indemnifying party, the indemnifying party shall not have the right to assume the defense of such claim on behalf of such Person). If the indemnifying party assumes the defense, the indemnifying party shall not have the right to settle such action, consent to entry of any judgment or enter into any settlement, in each case without the prior written consent of the indemnified party, unless the entry of such judgment or settlement (i) includes as an unconditional term thereof the giving by the claimant or plaintiff to such indemnified party of an unconditional

release from all liability in respect to such claim or litigation and (ii) does not include a statement as to or an admission of fault, culpability or a failure to act by or on behalf of such indemnified party, and provided, that, any sums payable in connection with such settlement are paid in full by the indemnifying party. If such defense is not assumed by the indemnifying party, the indemnifying party will not be subject to any liability for any settlement made without its prior written consent, but such consent may not be unreasonably withheld. It is understood that the indemnifying party or parties shall not, except as specifically set forth in this Section 2.09(c), in connection with any proceeding or related proceedings in the same jurisdiction, be liable for the reasonable fees, disbursements or other charges of more than one separate firm admitted to practice in such jurisdiction at any one time unless (x) the employment of more than one counsel has been authorized in writing by the indemnifying party or parties, (y) an indemnified party has reasonably concluded (based on the advice of counsel) that there may be legal defenses available to it that are different from or in addition to those available to the other indemnified parties, or (z) a conflict or potential conflict exists or may exist (based upon advice of counsel to an indemnified party) between such indemnified party and the other indemnified parties, in each of which cases the indemnifying party shall be obligated to pay the reasonable fees and expenses of such additional counsel or counsels.

(d) Contribution. If for any reason the indemnification provided for in paragraphs (a) and (b) of this Section 2.09 is unavailable to an indemnified party or insufficient in respect of any Losses referred to therein, then the indemnifying party shall contribute to the amount paid or payable by the indemnified party as a result of such Loss in such proportion as is appropriate to reflect the relative fault of the indemnifying party on the one hand and the indemnified party or parties on the other hand in connection with the acts, statements or omissions that resulted in such losses, as well as any other relevant equitable considerations. In connection with any Registration Statement filed with the SEC by the Company, the relative fault of the indemnifying party on the one hand and the indemnified party on the other hand shall be determined by reference to, among other things, whether any untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the indemnifying party or by the indemnified party and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission. The parties hereto agree that it would not be just or equitable if contribution pursuant to this Section 2.09(d) were determined by pro rata allocation or by any other method of allocation that does not take account of the equitable considerations referred to in this Section 2.09(d). No Person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any Person who was not guilty of such fraudulent misrepresentation. The amount paid or payable by an indemnified party as a result of the Losses referred to in Sections 2.09(a) and 2.09(b) shall be deemed to include, subject to the limitations set forth above, any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending any such action or claim. Notwithstanding the provisions of this Section 2.09(d), in connection with any Registration Statement filed by the Company, a Participating Holder shall not be required to contribute any amount in excess of the dollar amount of the net proceeds received by such Holder under the sale of Registrable Securities giving rise to such contribution obligation less any amount paid by such Holders pursuant to Section 2.09(b). If indemnification is available under this Section 2.09, the

indemnifying parties shall indemnify each indemnified party to the full extent provided in Sections 2.09(a) and 2.09(b) hereof without regard to the provisions of this Section 2.09(d).

(e) No Exclusivity. The remedies provided for in this Section 2.09 are not exclusive and shall not limit any rights or remedies which may be available to any indemnified party at law or in equity or pursuant to any other agreement.

(f) Survival. The indemnities provided in this Section 2.09 shall survive the transfer of any Registrable Securities by such Holder.

SECTION 2.10. Rules 144 and 144A and Regulation S. The Company covenants that it will file the reports required to be filed by it under the Securities Act and the Exchange Act and the rules and regulations adopted by the SEC thereunder (or, if the Company is not required to file such reports, it will, upon the reasonable request of WP or TVG, make publicly available such necessary information for so long as necessary to permit sales pursuant to Rules 144, 144A or Regulation S under the Securities Act), and it will take such further action as WP or TVG may reasonably request, all to the extent required from time to time to enable the Holders, following the IPO, to sell Registrable Securities without Registration under the Securities Act within the limitation of the exemptions provided by (i) Rules 144, 144A or Regulation S under the Securities Act, as such Rules may be amended from time to time, or (ii) any similar rule or regulation hereafter adopted by the SEC. Upon the reasonable request of a Holder, the Company will deliver to such Holder a written statement as to whether it has complied with such requirements and, if not, the specifics thereof.

SECTION 2.11. Limitation on Registrations and Underwritten Offerings.

(a) Notwithstanding the rights and obligations set forth in Sections 2.01 and 2.02, in no event shall the Company be obligated to take any action to effect any Demand Registration or any Marketed Underwritten Shelf Take-Down:

(i) at the request of WP (and its Affiliates and Permitted Assignees) after the Company has effected such number of Demand Registrations and/or Marketed Underwritten Shelf Take-Downs at the request of WP and its Affiliates and Permitted Assignees equal to the number of WP Registration Demands; provided, however, that the first Marketed Underwritten Shelf Take-Down initiated by WP (or its Affiliates and Permitted Assignees) from any Shelf Registration Statement previously requested by WP (or its Affiliates and Permitted Assignees), shall not be deemed to be, solely for purposes of this Section 2.11(a)(i), a Marketed Underwritten Shelf Take-Down; and

(ii) at the request of TVG (and its Affiliates and Permitted Assignees) after the Company has effected such number of Demand Registrations and/or Marketed Underwritten Shelf Take-Downs at the request of TVG and its Affiliates and Permitted Assignees equal to the number of TVG Registration Demands; provided, however, that the first Marketed Underwritten Shelf Take-Down initiated by TVG (or its Affiliates and Permitted Assignees) in respect of any Shelf Registration Statement previously requested

by TVG (or its Affiliates and Permitted Assignees), shall not be deemed to be, solely for purposes of this Section 2.11(a)(ii), a Marketed Underwritten Shelf Take-Down.

(b) Notwithstanding the rights and obligations set forth in Sections 2.01 and 2.02, in no event shall the Company be obligated to take any action to (i) effect more than one Marketed Underwritten Offering in any consecutive 90-day period or (ii) effect any Underwritten Offering unless the Institutional Investor initiating such Underwritten Offering proposes to sell Registrable Securities in such Underwritten Offering having a reasonably anticipated gross aggregate price (before deduction of underwriter commissions and offering expenses) of at least $10,000,000 or 100% of the Registrable Securities then held by such Institutional Investor (if the value of such Registrable Securities is reasonably anticipated to have a gross aggregate price of less than $10,000,000).

(c) For purposes of this Agreement:

(i) "TVG Registration Demands" means two (2); provided, however, that with respect to Registrations pursuant to Section 2.02(a), if the Company is eligible to file a Short Form Registration, such Short Form Registrations shall not be limited and shall not count as one of the two (2) TVG Registration Demands for purposes of Section 2.11(a)(i).

(ii) "WP Registration Demands" means three (3) ; provided, however, that with respect to Registrations pursuant to Section 2.02(a), if the Company is eligible to file a Short Form Registration, such Short Form Registrations shall not be limited and shall not count as one of the three (3) WP Registration Demands for purposes of Section 2.11(a)(i).

SECTION 2.12. Clear Market. With respect to any Underwritten Offerings of Registrable Securities by an Institutional Investor, the Company agrees not to effect (other than pursuant to the Registration applicable to such Underwritten Offering or pursuant to a Special Registration or pursuant to the exercise by another Institutional Investor of any of its rights under Section 2.01 or Section 2.02) any public sale or distribution, or to file any Registration Statement (other than pursuant to the Registration applicable to such Underwritten Offering or pursuant to a Special Registration or pursuant to the exercise by an Institutional Investor of any of its rights under Section 2.01 or Section 2.02) covering any of its equity securities or any securities convertible into or exchangeable or exercisable for such securities, during the period not to exceed ten (10) days prior and sixty (60) days following the effective date of such offering or such longer period up to ninety (90) days as may be requested by the managing underwriter for such Underwritten Offering. "Special Registration" means the registration of (A) equity securities and/or options or other rights in respect thereof solely registered on Form S-4 or Form S-8 (or successor form) or (B) shares of equity securities and/or options or other rights in respect thereof to be offered to directors, employees, consultants, customers, lenders or vendors of the Company or its Subsidiaries or in connection with dividend reinvestment plans.

SECTION 2.13. In-Kind Distributions. If any Holder seeks to effectuate an in-kind distribution of all or part of its Company Shares to its direct or indirect equityholders, the

Company will, subject to applicable lockups pursuant to Section 2.04, reasonably cooperate with and assist such Holder, such equityholders and the Company's transfer agent to facilitate such in-kind distribution in the manner reasonably requested by such Holder (including the delivery of instruction letters by the Company or its counsel to the Company's transfer agent, the delivery of customary legal opinions by counsel to the Company and the delivery of Company Shares without restrictive legends, to the extent no longer applicable).

ARTICLE III

MISCELLANEOUS

SECTION 3.01. Term. This Agreement shall terminate with respect to any Holder (a) with the prior written consent of WP and TVG in connection with the consummation of a Change of Control (including any Deemed Liquidation Event (as defined in the Company Stockholders Agreement); (b) for those Holders that beneficially own less than five percent (5%) of the Company's outstanding Company Shares, if all of the Registrable Securities then owned by such Holder could be sold in any ninety (90)-day period pursuant to Rule 144 (assuming for this purpose that such Holder is an Affiliate of the Company), (c) as to any Holder, if all of the Registrable Securities held by such Holder have been sold in a Registration pursuant to the Securities Act or pursuant to an exemption therefrom or (d) with respect to any Employee Shareholder, on the date on which such Employee Shareholder ceases to be an employee of the Company or its Subsidiaries. Notwithstanding the foregoing, the provisions of Sections 2.09, 2.10 and 2.13 and all of this Article III shall survive any such termination. Upon the written request of the Company, each Holder agrees to promptly deliver a certificate to the Company setting forth the number of Registrable Securities then beneficially owned by such Holder.

SECTION 3.02. Injunctive Relief. It is hereby agreed and acknowledged that it will be impossible to measure in money the damage that would be suffered if the parties fail to comply with any of the obligations herein imposed on them and that in the event of any such failure, an aggrieved Person will be irreparably damaged and will not have an adequate remedy at law. Any such Person shall, therefore, be entitled (in addition to any other remedy to which it may be entitled in law or in equity) to injunctive relief, including specific performance, to enforce such obligations, and if any action should be brought in equity to enforce any of the provisions of this Agreement, none of the parties hereto shall raise the defense that there is an adequate remedy at law.

SECTION 3.03. Attorneys' Fees. In any action or proceeding brought to enforce any provision of this Agreement or where any provision hereof is validly asserted as a defense, the successful party shall, to the extent permitted by applicable law, be entitled to recover reasonable attorneys' fees in addition to any other available remedy.

SECTION 3.04. Notices. Unless otherwise specified herein, all notices, consents, approvals, reports, designations, requests, waivers, elections and other communications authorized or required to be given pursuant to this Agreement shall be in writing and shall be deemed to have been given (a) when personally delivered, (b) when transmitted via facsimile to the number set out below or on Schedule A, as applicable, if the sender on the same day sends a

confirming copy of such notice by a recognized overnight delivery service (charges prepaid), (c) the day following the day (except if not a Business Day then the next Business Day) on which the same has been delivered prepaid to a reputable national overnight air courier service, (d) when transmitted via email (including via attached pdf document) to the email address set out below or on Schedule A, as applicable, if the sender on the same day sends a confirming copy of such notice by a recognized overnight delivery service (charges prepaid) or (e) the third Business Day following the day on which the same is sent by certified or registered mail, postage prepaid, in each case to the respective parties as applicable, at the address, facsimile number or email address set forth on Schedule A (or such other address, facsimile number or email address as such Holder may specify by notice to the Company in accordance with this Section 3.04) and the Company at the following addresses:

To the Company:

Silk Road Medical, Inc.
735 Pastoria Ave.
Sunnyvale, CA 94085-2918
Fax: (408) 720-9013
Attention: Erica J. Rogers
Email: erogers@silkroadmed.com

with copies (which shall not constitute notice) to:

Wilson Sonsini Goodrich & Rosati, P.C.
650 Page Mill Road
Palo Alto, CA 94304
Fax: 650-493-6811
Attention: Philip H. Oettinger
Email: poettinger@wsgr.com

SECTION 3.05. Publicity and Confidentiality. Each of the parties hereto shall keep confidential this Agreement and the transactions contemplated hereby, and any nonpublic information received pursuant hereto, and shall not disclose, issue any press release or otherwise make any public statement relating hereto or thereto without the prior written consent of the Company and WP unless so required by applicable law or any governmental authority; provided that no such written consent shall be required (and each party shall be free to release such information) for disclosures (a) to each party's partners, members, advisors, employees, agents, accountants, trustee, attorneys, Affiliates and investment vehicles managed or advised by such party or the partners, members, advisors, employees, agents, accountants, trustee or attorneys of such Affiliates or managed or advised investment vehicles, in each case so long as such Persons agree to keep such information confidential or (b) to the extent required by law, rule or regulation.

SECTION 3.06. Amendment. The terms and provisions of this Agreement may only be amended, modified or waived at any time and from time to time by a writing

executed by the Company and the Institutional Investors holding a majority of the then-outstanding Registrable Securities held by all Institutional Investors; provided, that, any amendment, modification or waiver that would affect the rights, benefits or obligations of any Institutional Investor shall require the written consent of such Institutional Investor only if (i) such amendment, modification or waiver would materially and adversely affect such rights, benefits or obligations of such Institutional Investor and (ii) such amendment, modification or waiver would treat such Institutional Investor in a materially worse manner than the manner in which such amendment or waiver treats the other Institutional Investors.

SECTION 3.07. Successors, Assigns and Transferees. The rights and obligations of each party hereto may not be assigned, in whole or in part, without the written consent of (i) the Company and (ii) the Institutional Investors holding a majority of the then-outstanding Registrable Securities held by all Institutional Investors; provided, however, that notwithstanding the foregoing, the rights and obligations set forth herein may be assigned, in whole or in part, by any Institutional Investor to any transferee of Registrable Securities that holds (after giving effect to such transfer) in excess of one percent (1%) of the then-outstanding Registrable Securities, and such transferee shall, with the consent of the transferring Institutional Investor, be treated as an Institutional Investor for all purposes of this Agreement; provided, however, that if the transferring Institutional Investor is a New Institutional Investor, then such transferee shall, subject to the consent of the transferring New Institutional Investor, be treated as a New Institutional Investor under this Agreement and, solely to the extent expressly provided in any joinder to this Agreement to which the applicable transferring New Institutional Investor is a party, an Institutional Investor (each Person to whom the rights and obligations are assigned in compliance with this Section 3.07 is a "Permitted Assignee" and all such Persons, collectively, are "Permitted Assignees"); provided further, that such transferee shall only be admitted as a party hereunder upon its, his or her execution and delivery of a joinder agreement, in form and substance acceptable to each Institutional Investor, agreeing to be bound by the terms and conditions of this Agreement as if such Person were a party hereto (together with any other documents the Institutional Investors determine are necessary to make such Person a party hereto), whereupon such Person will be treated as a Holder for all purposes of this Agreement, with the same rights, benefits and obligations hereunder as the transferring Holder with respect to the transferred Registrable Securities (except that if the transferee was a Holder prior to such transfer, such transferee shall have the same rights, benefits and obligations with respect to the such transferred Registrable Securities as were applicable to Registrable Securities held by such transferee prior to such transfer). Nothing herein shall operate to permit a transfer of Registrable Securities otherwise restricted by the Company Stockholders Agreement or any other agreement to which any Holder may be a party.

SECTION 3.08. Binding Effect. Except as otherwise provided in this Agreement, the terms and provisions of this Agreement shall be binding on and inure to the benefit of each of the parties hereto and their respective successors.

SECTION 3.09. Third Party Beneficiaries. Nothing in this Agreement, express or implied, is intended or shall be construed to confer upon any Person not a party hereto (other than those Persons entitled to indemnity or contribution under Section 2.09, each of whom

shall be a third party beneficiary thereof) any right, remedy or claim under or by virtue of this Agreement.

SECTION 3.10. Governing Law; Jurisdiction. THIS AGREEMENT SHALL BE GOVERNED AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF DELAWARE, WITHOUT REGARD TO THE CONFLICTS OF LAW PRINCIPLES THEREOF. ANY ACTION OR PROCEEDING AGAINST THE PARTIES RELATING IN ANY WAY TO THIS AGREEMENT MAY BE BROUGHT AND ENFORCED EXCLUSIVELY IN THE COURTS OF THE STATE OF DELAWARE OR (TO THE EXTENT SUBJECT MATTER JURISDICTION EXISTS THEREFOR) THE U.S. DISTRICT COURT FOR THE DISTRICT OF DELAWARE, AND THE PARTIES IRREVOCABLY SUBMIT TO THE JURISDICTION OF BOTH SUCH COURTS IN RESPECT OF ANY SUCH ACTION OR PROCEEDING.

SECTION 3.11. Waiver of Jury Trial. EACH OF THE PARTIES HERETO HEREBY WAIVES TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY WITH RESPECT TO ANY LITIGATION DIRECTLY OR INDIRECTLY ARISING OUT OF, UNDER OR IN CONNECTION WITH THIS AGREEMENT OR ANY OF THE TRANSACTIONS CONTEMPLATED HEREBY. EACH OF THE PARTIES HEREBY (A) CERTIFIES THAT NO REPRESENTATIVE, AGENT OR ATTORNEY OF THE OTHER PARTY HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT SUCH OTHER PARTY WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE THE FOREGOING WAIVER AND (B) ACKNOWLEDGES THAT IT HAS BEEN INDUCED TO ENTER INTO THIS AGREEMENT AND THE TRANSACTIONS CONTEMPLATED BY THIS AGREEMENT, AS APPLICABLE, BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS AND CERTIFICATIONS IN THIS SECTION 3.11.

SECTION 3.12. Severability. If any provision of this Agreement shall be held to be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

SECTION 3.13. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, and all of which shall constitute one and the same agreement.

SECTION 3.14. Headings. The heading references herein and in the table of contents hereto are for convenience purposes only, do not constitute a part of this Agreement and shall not be deemed to limit or affect any of the provisions hereof.

SECTION 3.15. Joinder. Any Person that holds Company Shares may, with the prior written consent of WP and TVG, which such consent shall not be unreasonably withheld, conditioned or delayed, be admitted as a party to this Agreement upon its execution and delivery of a joinder agreement, in form and substance reasonably acceptable to WP and TVG, agreeing to be bound by the terms and conditions of this Agreement as if such Person were a party hereto (together with any other documents that WP and TVG determine are reasonably

necessary to make such Person a party hereto), whereupon such Person will be treated as a Holder for all purposes of this Agreement.

[*Remainder of Page Intentionally Blank*]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

SILK ROAD MEDICAL, INC.

By: /s/ Erica J. Rogers

Erica J. Rogers

President and Chief Executive Officer

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

INVESTORS:

VERTICAL FUND I, L.P.

By: The Vertical Group, L.P., its General Partner
By: The Vertical Group GPHC, LLC, its General Partner

By: /s/ Tony Chou
Name: Tony Chou
Title: Authorized Signatory

VERTICAL FUND II, L.P.

By: The Vertical Group, L.P., its General Partner
By: The Vertical Group GPHC, LLC, its General Partner

By: /s/ Tony Chou
Name: Tony Chou
Title: Authorized Signatory

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

INVESTORS:

WP X FINANCE, L.P.
By: WPX GP, L.P., its Managing General Partner
By: Warburg Pincus Private Equity X, L.P., its General Partner
By: Warburg Pincus X, L.P, its General Partner
By: Warburg Pincus X GP L.P., its General Partner
By: WPP GP LLC, its General Partner
By: Warburg Pincus Partners, L.P., its Managing Member
By: Warburg Pincus Partners GP LLC, its General Partner
By: Warburg Pincus & Co., its Managing Member

By: /s/ Steven Glenn
Name: Steven Glenn
Title: Partner

WARBURG PINCUS X PARTNERS, L.P.
By: Warburg Pincus X, L.P., its General Partner
By: Warburg Pincus X GP L.P., its General Partner
By: WPP GP LLC, its General Partner
By: Warburg Pincus Partners, L.P., its Managing Member
By: Warburg Pincus Partners GP LLC, its General Partner
By: Warburg Pincus & Co., its Managing Member

By: /s/ Steven Glenn
Name: Steven Glenn
Title: Partner

Schedule A

HOLDER	FOR PURPOSES OF SECTION 3.04, WITH A COPY (WHICH SHALL NOT CONSTITUTE NOTICE) TO:
WP X FINANCE, L.P. 450 Lexington Avenue, New York, NY 10017 Facsimile: (212) 716-8645 Attention: In Seon Hwang Email: notices@warburgpincus.com	Simpson Thacher & Bartlett LLP 2475 Hanover Street Palo Alto, CA 94304 Facsimile: (650) 251-5002 Attention: Robert T. Langdon, Esq.
WARBURG PINCUS X PARTNERS, L.P. 450 Lexington Avenue, New York, NY 10017 Facsimile: (212) 716-8645 Attention: In Seon Hwang Email: notices@warburgpincus.com	Simpson Thacher & Bartlett LLP 2475 Hanover Street Palo Alto, CA 94304 Facsimile: (650) 251-5002 Attention: Robert T. Langdon, Esq.
VERTICAL FUND I, L.P. 106 Allen Road, Suite 207 Basking Ridge, NJ 07920 Facsimile: (908) 273-9434 Attention: John Runnells General Partner Email: jrunnells@vertical-group.com	N/A
VERTICAL FUND II, L.P. 106 Allen Road, Suite 207 Basking Ridge, NJ 07920 Facsimile: (908) 273-9434 Attention: John Runnells General Partner Email: jrunnells@vertical-group.com	N/A

SILK ROAD MEDICAL, INC.

AMENDED AND RESTATED STOCKHOLDERS AGREEMENT

This Amended and Restated Stockholders Agreement (this "Agreement") is dated as of this 7th day of July, 2017 and entered into by and among the institutional investors listed on Schedule I hereto (the "Institutional Investors"); the individuals whose names and addresses appear from time to time on Schedule II hereto (the "Other Investors"); and Silk Road Medical, Inc., a Delaware corporation (the "Company"). The Institutional Investors and the Other Investors are hereinafter each referred to as an "Investor" and collectively referred to as the "Investors".

R E C I T A L S

WHEREAS, the Investors and the Company are party to a Stockholders Agreement, dated as of August 7, 2014 (the "Original Agreement");

WHEREAS, the Investors and the Company desire to amend and restate the Original Agreement upon the terms and conditions set forth in this Agreement;

WHEREAS, certain of the Investors have, pursuant to the terms of the Third Series C Preferred Stock Purchase Agreement, dated as of July 7, 2017, with the Company (as the same may be amended from time to time, the "Stock Purchase Agreement") agreed to purchase shares of Series C Preferred Stock of the Company, par value $0.001 per share (the "Series C Preferred Stock"); and

WHEREAS, the Board of Directors of the Company (the "Board") has determined that it is in the best interests of the Company that the Company enter into this Agreement to amend and restate the Original Agreement.

NOW, THEREFORE, in consideration of the mutual covenants and agreements herein contained, the parties hereto hereby amend and restated the Original Agreement as follows:

1. COVENANTS OF THE PARTIES

(a) Legends.

(i) The certificates evidencing the Purchased Equity Shares and Granted Equity Shares (together with any Share Equivalents and any shares of capital stock of the Company issued with respect to such Purchased Equity Shares or Granted Equity Shares by way of a stock dividend or distribution payable thereon or stock split, reverse stock split, recapitalization, reclassification, reorganization, exchange, subdivision or combination thereof, the "Shares") acquired by the Investors will bear substantially the following legend reflecting the restrictions on the Transfer of such securities contained in this Agreement:

> "THE SECURITIES EVIDENCED HEREBY ARE SUBJECT TO THE TERMS OF THAT CERTAIN STOCKHOLDERS AGREEMENT (AS AMENDED FROM TIME TO TIME) BY AND AMONG SILK ROAD MEDICAL, INC. AND

CERTAIN INVESTORS IDENTIFIED THEREIN, INCLUDING CERTAIN RESTRICTIONS ON TRANSFER. A COPY OF THIS AGREEMENT HAS BEEN FILED WITH THE SECRETARY OF SILK ROAD MEDICAL, INC. AND IS AVAILABLE UPON REQUEST."

(ii) If any certificates representing any Shares held by an Investor do not bear substantially the foregoing legend, such Investor shall, as promptly as practicable after the date hereof, deliver all such certificates to the Company to enable the Company to place such legend on such certificates.

(iii) In the event that the restrictive legend set forth in Section 1(a)(i) above has ceased to be applicable to the Shares held by an Investor, the Company shall provide such Investor, or his, her or its Transferee(s), at his, her or its request, with new certificates for such Shares not bearing the legend with respect to which the restriction has ceased and terminated. In connection with and following the Company's initial registered offering of Common Stock of the Company or its successor to the public (the "Initial Public Offering"), if an Investor Transfers Shares in accordance with this Agreement (other than to Permitted Transferees), with respect to only the securities being Transferred, the Company shall provide such Investor, or his, her or its Transferee(s), at his, her or its request, with new certificates for such Shares being Transferred not bearing the legend with respect to which the restriction has ceased and terminated.

(b) Additional Investors. The parties hereto acknowledge that certain Persons, including, without limitation, directors, employees and consultants of the Company and its Affiliates and their Permitted Transferees, may become stockholders of the Company or holders of Share Equivalents after the date hereof. Except with respect to Transfers made pursuant to Section 3, as a condition to the issuance of shares of capital stock of the Company to them (including Share Equivalents), the Company may require such Persons to execute and deliver (i) an agreement in writing to be bound by the terms and conditions of this Agreement pursuant to a Joinder Agreement substantially in the form attached as Exhibit A hereto (a "Joinder Agreement") or (ii) an agreement reasonably satisfactory to Warburg Pincus Private Equity X, L.P. and Warburg Pincus X Partners, L.P. (collectively the "WP X Funds", and together with any successors and affiliated funds, including Permitted Transferees, "Warburg Pincus") containing restrictions substantially similar to those applicable to the Other Investors; provided, however, unless the consent of the WP X Funds is obtained, any such Persons shall not have the tag-along rights contemplated by Section 3(d) herein or the subscription rights contemplated by Section 3(f) herein; provided further, however, that if such Person is receiving Granted Equity Shares such Person shall be required to become a party to this Agreement. With respect to any such Person required to become a party to this Agreement who is a director, employee or consultant of the Company, such Person shall be, and such Joinder Agreement or other agreement shall provide that such Person be, for purposes hereof, an Other Investor; provided, however, unless the consent of the WP X Funds is obtained, any such Person shall not have the subscription rights contemplated by Section 3(f) herein. With respect to any such Person required to become a party to this Agreement who is not a director, employee or consultant of the Company, such Person shall be, and such Joinder Agreement or other agreement shall provide that such Person be, for purposes hereof, an Institutional Investor or an Other Investor, as determined by the Board with the written consent of the WP X Funds.

(c) Financial Reports and Other Information.

(i) For so long as an Institutional Investor Owns Shares representing more than five percent (5%) of the outstanding shares of Common Stock on a Fully Diluted Basis, the Company shall provide to such Institutional Investor the following, provided, however, that Janus will be deemed to be an Institutional Investor under this Section 1(c) for as long as Janus Owns any Shares; provided further, however, that Norwest will be deemed to be an Institutional Investor under this Section 1(c) for as long Norwest Owns at least fifty percent (50%) of the shares of Series C Preferred Stock purchased by it pursuant to the Stock Purchase Agreement (subject to appropriate adjustment in the event of any stock dividend, stock split, stock distribution or combination, subdivision, reclassification or other corporate actions having the similar effect with respect to the Series C Preferred Stock):

(A) Quarterly Statements. As promptly as practical after they are provided to the Board, the unaudited quarterly financial statements of the Company and its subsidiaries;

(B) Monthly Statements. As promptly as practical after the end of each calendar month, the unaudited monthly financial statements of the Company and its subsidiaries;

(C) Annual Audit. As promptly as practical after they are provided to the Board, audited annual financial statements of the Company and its subsidiaries;

(D) Annual Budget. As promptly as practical after it is approved by the Board, a copy of the annual budget of the Company and its subsidiaries;

(E) Audit Reports. Promptly following receipt thereof, one copy of each audit report submitted to the Company by its independent accountants in connection with any annual, interim or special audit made by them of the books of the Company and its subsidiaries;

(F) Reports to Stockholders and Creditors. As promptly as practical after it is provided to the Company's stockholders or lenders, any material report that is provided to such stockholders or lenders;

(G) Capitalization Changes. As promptly as practical after the number of shares of Common Stock outstanding on a Fully Diluted Basis increases or decreases by more than one percent (1%), an updated capitalization table reflecting such changes; and

(H) Requested Information. As promptly as practical, such other data and information as from time to time may be reasonably requested by such Institutional Investor.

(ii) Notwithstanding the foregoing, the Company shall have no obligation to provide the information required pursuant to this Section 1(c) (Financial Reports and Other Information) to an Institutional Investor to the extent that such Institutional Investor and/or one of its Affiliates is a member of the Board or an employee of the Company and otherwise has access to such information. Notwithstanding anything else in this Section 1(c) (Financial Reports and Other Information) to the contrary, the Company may cease providing the information set forth in

this Section 1(c) during the period starting with the date sixty (60) days before the Company's good-faith estimate of the date of filing of a registration statement in connection with its Initial Public Offering if it reasonably concludes it must do so to comply with the SEC rules applicable to such registration statement and related offering; provided that the Company's covenants under this Section 1(c) shall be reinstated at such time as the Company is no longer actively employing its commercially reasonable efforts to cause such registration statement to become effective.

(d) Inspection Rights. Following the date hereof and for so long as an Institutional Investor Owns at least five percent (5%) of the outstanding Common Stock on a Fully Diluted Basis, the Company will permit such Institutional Investor and its nominees, assignees and representatives to, upon 48 hours advance notice, visit and inspect any of the properties of the Company and its subsidiaries, to examine all its books of account, records, reports and other papers, to make copies and extracts therefrom, and to discuss its affairs, finances and accounts with its officers, directors, key employees and independent public accountants or any of them (and by this provision the Company authorizes said accountants to discuss with such Institutional Investors, its nominees, permitted assigns and representatives the finances and affairs of the Company and its subsidiaries), all at such reasonable times and as often as may be reasonably requested, provided, however, that Janus will be deemed to be an Institutional Investor under this Section 1(d) for as long as Janus Owns any Shares; provided, further, that Norwest will be deemed to be an Institutional Investor under this Section 1(d) for as long Norwest Owns at least fifty percent (50%) of the shares of Series C Preferred Stock that Norwest purchased pursuant to the Stock Purchase Agreement (subject to appropriate adjustment in the event of any stock dividend, stock split, stock distribution or combination, subdivision, reclassification or other corporate actions having the similar effect with respect to the Series C Preferred Stock).

(e) Right to Conduct Activities. The Company hereby agrees and acknowledges that Norwest and Janus are professional investment funds, and as such invest in numerous portfolio companies, some of which may be deemed competitive with the Company's business (as currently conducted or as currently proposed to be conducted). The Company hereby agrees that, to the extent permitted under applicable law, Norwest and Janus shall not be liable to the Company for any claim arising out of, or based upon, (a) the investment by Norwest or Janus in any entity competitive with the Company, or (b) actions taken by any partner, officer or other representative of Norwest or Janus to assist any such competitive company, whether or not such action was taken as a member of the board of directors of such competitive company or otherwise, and whether or not such action has a detrimental effect on the Company; provided, however that the foregoing shall not relieve (x) Norwest or Janus or any party from liability associated with the willful misuse of the Company's confidential information obtained pursuant to this Agreement, or (ii) any director or officer of the Company from any liability associated with his or her fiduciary duties to the Company.

(f) Foreign Corrupt Practices Act Enforcement Actions**.** The Company shall promptly notify Norwest and Janus should the Company become aware of any Enforcement Action (as defined in the Stock Purchase Agreement).

(g) No Publicity. The Company shall not disclose the identity of Janus or the details of its investment in the Company in any press release or public statement without Janus's prior written consent.

2. BOARD OF DIRECTORS.

(a) Election of Directors.

(i) As of the date hereof, the Board will consist of Erica Rogers, Tony Chou, Jack Lasersohn (Tony Chou and Jack Lasersohn, together, being the Series A Preferred Directors (as defined below)), In Seon Hwang, Ruoxi Chen (In Seon Hwang and Ruoxi Chen, together, being the Series B Preferred Directors (as defined below)), Richard Mott (being the Series B Independent Director (as defined in the Certificate of Incorporation)), Elizabeth Weatherman and Robert Mittendorff, MD (Elizabeth Weatherman and Robert Mittendorff, MD, together, being the Series C Directors (as defined below)). From and after the Closing (as such term is defined in the Stock Purchase Agreement), the Investors and the Company shall take all reasonable action within their respective power, including, but not limited to, the voting of (or acting by written consent with respect to) all shares of capital stock of the Company Owned by them (including the Shares), required to cause the Board to consist of eight (8) members which shall include: (i) the then-current Chief Executive Officer of the Company; (ii) two (2) representatives designated by the holders of the Existing Series A Preferred in accordance with the terms of the Certificate of Incorporation (each a "Series A Preferred Director"); (iii) three (3) representatives designated by the holders of the Series B Preferred Stock in accordance with the terms of the Certificate of Incorporation (each, a "Series B Preferred Director"); and (iv) two (2) representatives designated by the holders of the Series C Preferred Stock, provided, however, that one of the Series C Directors shall be designated by Norwest for so long as it Owns at least fifty percent (50%) of the shares of Series C Preferred Stock purchased by it pursuant to the Stock Purchase Agreement (subject to appropriate adjustment in the event of any stock dividend, stock split, stock distribution or combination, subdivision, reclassification or other corporate actions having the similar effect with respect to the Series C Preferred Stock) (the "Series C Preferred Directors") in accordance with the terms of the Certificate of Incorporation.

(ii) From the date on which the Company completes an Initial Public Offering, and for as long as Warburg Pincus and its Affiliates Own at least ten percent (10%) of the issued and outstanding Common Stock, the Company will nominate and use its commercially reasonable efforts (including, without limitation, soliciting proxies for the Warburg Pincus designee to the same extent as it does for any of its other nominees to the Board) to have such number of individuals designated by Warburg Pincus elected to the Board so that the number of individuals designated by Warburg Pincus for election to the Board as compared to the size of the Board is proportionate to the number of Shares of issued and outstanding Common Stock then Owned by Warburg Pincus and its Affiliates as compared to the number of Shares of issued and outstanding Common Stock at such time; provided, however, that as long as Warburg Pincus Owns at least ten percent (10%) of the issued and outstanding Common Stock, Warburg Pincus shall have the right to designate at least one (1) individual for election to the Board. Following the Initial Public Offering, for as long as Warburg Pincus is entitled to appoint one or more persons to the Board, the Board,

or a committee thereof consisting of non-employee directors (as such term is defined for purposes of Rule 16b-3 under the Exchange Act), shall, if requested by Warburg Pincus, and to the extent then permitted under applicable law, adopt resolutions and otherwise use reasonable efforts (without material cost to the Company) to cause any acquisition from the Company of securities or disposition of securities to the Company (including in connection with any exercise of warrants or other derivative securities held by Warburg Pincus or their Affiliates) to be exempt under Rule 16b-3 under the Exchange Act.

(iii) From the date on which the Company completes an Initial Public Offering, and for as long as the Vertical Funds and their Affiliates Own at least ten percent (10%) of the issued and outstanding Common Stock, the Company will nominate and use its commercially reasonable efforts (including, without limitation, soliciting proxies for the Vertical Funds' designee to the same extent as it does for any of its other nominees to the Board) to have such number of individuals designated by the Vertical Funds elected to the Board so that the number of individuals designated by Vertical Funds for election to the Board as compared to the size of the Board is proportionate to the number of Shares of issued and outstanding Common Stock then Owned by the Vertical Funds and their Affiliates as compared to the number of Shares of issued and outstanding Common Stock at such time; provided, however, that as long as the Vertical Funds Own at least ten percent (10%) of the issued and outstanding Common Stock, the Vertical Funds shall have the right to designate at least one (1) individual for election to the Board. Following the Initial Public Offering, for as long as the Vertical Funds are entitled to appoint one or more persons to the Board, the Board, or a committee thereof consisting of non-employee directors (as such term is defined for purposes of Rule 16b-3 under the Exchange Act), shall, if requested by the Vertical Funds, and to the extent then permitted under applicable law, adopt resolutions and otherwise use reasonable efforts (without material cost to the Company) to cause any acquisition from the Company of securities or disposition of securities to the Company (including in connection with any exercise of warrants or other derivative securities held by the Vertical Funds or their Affiliates) to be exempt under Rule 16b-3 under the Exchange Act.

(b) Replacement Directors. In the event that any Series C Preferred Director, Series B Preferred Director or Series A Preferred Director, as applicable, designated in the manner set forth in Section 2(a) (Election of Directors) hereof is unable to serve, or once having commenced to serve, is removed or withdraws from the Board (a "Withdrawing Director"), such Withdrawing Director's replacement (the "Substitute Director") will be designated in accordance with the terms of the Certificate of Incorporation and this Agreement. The Investors and the Company agree to take all action within their respective power, including but not limited to, the voting of (or acting by written consent with respect to) capital stock of the Company Owned by them (i) to cause the election of such Substitute Director promptly following his or her nomination pursuant to this Section 2(b) (Replacement Directors) or (ii) upon the written request of the Series C Preferred Stock, Series B Preferred Stock or the Existing Series A Preferred, as applicable, in accordance with the terms of the Certificate of Incorporation and this Agreement, to remove, with or without cause, any Series C Preferred Director, any Series B Preferred Director or any Series A Preferred Director, respectively, in accordance with the terms of the Certificate of Incorporation.

(c) Committees of the Board.

(i) In the event that the Board establishes any committee thereof, so long as Warburg Pincus is entitled to designate at least one (1) member of the Board (each such member, a "Warburg Pincus Director"), the Company and the Vertical Funds will use commercially reasonable efforts to have such number of Warburg Pincus Directors appointed to each committee of the Board so that the number of Warburg Pincus Directors serving on each such committee compared to the size of such committee is proportionate to the number of Warburg Pincus Directors serving on the Board as compared to the number of members of the Board at such time, unless otherwise prohibited by law or applicable rules or regulations of any stock exchange or automated dealer quotation system on which the Common Stock is listed and excluding any committee formed to consider a transaction between Warburg Pincus and the Company.

(ii) In the event that the Board establishes any committee thereof, so long as the Vertical Funds are entitled to designate at least one (1) member of the Board (each such member, a "Vertical Funds Director"), the Company and Warburg Pincus will use commercially reasonable efforts to have such number of Vertical Funds Directors appointed to each committee of the Board so that the number of Vertical Funds Directors serving on each such committee compared to the size of such committee is proportionate to the number of Vertical Funds Directors serving on the Board as compared to the number of members of the Board at such time, unless otherwise prohibited by law or applicable rules or regulations of any stock exchange or automated dealer quotation system on which the Common Stock is listed and excluding any committee formed to consider a transaction between the Vertical Funds and the Company.

(d) Directors of Subsidiaries.

(i) Following the date hereof, so long as Warburg Pincus is entitled to designate at least one (1) Warburg Pincus Director, the Company and the Vertical Funds shall use commercially reasonable efforts to have such number of Warburg Pincus Directors appointed to the board of directors or managers of each subsidiary so that the number of Warburg Pincus Directors serving on each such board compared to the size of such board is proportionate to the number of Warburg Pincus Directors serving on the Board as compared to the number of members of the Board at such time, unless otherwise prohibited by law or applicable rules or regulations of any stock exchange or automated dealer quotation system on which the Common Stock is listed. Such designee(s) shall have the same right to participate on committees of the board of such subsidiaries as such designees have pursuant to Section 2(c) (Committees of the Board).

(ii) Following the date hereof, so long as the Vertical Funds are entitled to designate at least one (1) Vertical Funds Director, the Company and Warburg Pincus shall use commercially reasonable efforts to have such number of Vertical Funds Directors appointed to the board of directors or managers of each subsidiary so that the number of Vertical Funds Directors serving on each such board compared to the size of such board is proportionate to the number of Vertical Funds Directors serving on the Board as compared to the number of members of the Board at such time, unless otherwise prohibited by law or applicable rules or regulations of any stock exchange or automated dealer quotation system on which the Common Stock is listed. Such

designee(s) shall have the same right to participate on committees of the board of such subsidiaries as such designees have pursuant to Section 2(c) (Committees of the Board).

(e) Indemnification, Expense Reimbursement and Other Rights. In addition to any other indemnification rights the Series A Preferred Directors, the Series B Preferred Directors and the Series C Preferred Directors have pursuant to the Certificate of Incorporation, the Bylaws of the Company and any agreement with the Company, each Series A Preferred Director, Series B Preferred Director and Series C Preferred Directors shall have the right to enter into, and the Company agrees to enter into, an indemnification agreement with each such Series A Preferred Director, Series B Preferred Director and Series C Preferred Directors, as applicable, which indemnification agreement shall be consistent with indemnification agreements customarily entered into between companies and their independent board members. The Company shall reimburse the reasonable expenses incurred by the Series A Preferred Directors, the Series B Preferred Directors and the Series C Preferred Directors in connection with attending (whether in person or telephonically) all meetings of the Board or committees thereof or other Company related meetings to the same extent as all other members of the Board are reimbursed for such expenses (or, in case any such expense reimbursement policy shall apply only to non-employee directors, to the same extent as all other non-employee directors). The Company shall maintain director and officer insurance covering the Series A Preferred Directors, the Series B Preferred Directors and the Series C Preferred Directors on the same terms and with the same amount of coverage as is provided to other members of the Board. Following the Initial Public Offering, each Warburg Pincus Director and Vertical Funds Director shall be entitled to the same equity grants and other stock incentives provided to non-employee members of the Board (which grants shall have the same vesting and other terms provided to non-employee members of the Board) and the Warburg Pincus Directors and the Vertical Funds Directors shall be paid the same Board and committee fees, if any, paid to non-employee members of the Board.

(f) Janus Observer Rights. Until the earlier of (i) the Initial Public Offering, (ii) a Deemed Liquidation Event or (iii) Janus no longer holds any shares of Series C Preferred Stock, Janus, shall have the right to designate one (1) representative (the "Janus Observer") to attend and observe all meetings of the Board. The Janus Observer shall be given notice of (in the same manner that notice is given to other members of the Board) all meetings (whether in person, telephonic or otherwise) of the Board. The Janus Observer shall receive a copy of all notices, agendas and other material information distributed to the Board at the same time as distributed to the Board or promptly thereafter, whether provided to directors in advance or, during or after any meeting, regardless of whether the Janus Observer shall be in attendance at the meeting. Notwithstanding the foregoing, that the Company reserves the right to exclude the Janus Observer from access to any material or meeting or portion thereof if the Company believes upon advice of counsel that such exclusion is reasonably necessary to preserve the attorney-client privilege of information or to protect highly confidential proprietary information.

3. TRANSFER OF STOCK

(a) Resale of Securities. Subject to compliance with Section 3(b) (Transfer Restrictions) to the extent applicable, Section 3(c) (Right of First Refusal) and Section 3(d)(iv)

(Norwest Tag-Along Rights) to the extent applicable, any Institutional Investor shall be entitled to freely Transfer any Shares Owned by such Institutional Investor to any Person at any time and from time to time. No Other Investor shall Transfer any Shares Owned by such Other Investor other than in accordance with the provisions of this Agreement, including this Section 3 (Transfer of Stock), and any other agreements binding such Other Investor. Any Transfer made by an Other Investor in violation of this Agreement, including this Section 3 (Transfer of Stock), shall be null and void and of no effect. The Company shall not record on its stock transfer books or otherwise any Transfer of Shares in violation of the terms and conditions set forth herein. No Other Investor will pledge or otherwise grant a security interest in any Shares Owned by such Other Investor.

(b) Transfer Restrictions.

(i) Transfer Restrictions. Until the earlier of (A) the Initial Public Offering and (B) the closing of a Deemed Liquidation Event, no Other Investor shall Transfer any Shares without the prior written consent of the Company and the WP X Funds, which consent may be withheld in their sole discretion; provided, however, an Other Investor shall be permitted to Transfer any Purchased Equity Shares Owned and Granted Equity Shares (but only to the extent vested) Owned by such Other Investor without the consent of the Company and the WP X Funds in connection with the following: (i) Transfers pursuant to Section 3(e) (Drag Along Right); (ii) any Transfer to the Company or Warburg Pincus made with the consent of the Company and the WP X Funds; (iii) Transfers to the Company in connection with repurchases of Purchased Equity Shares and Granted Equity Shares from employees, officers, directors, consultants or other persons who performed services for the Company or any subsidiary in connection with the cessation of such employment or service, in each case approved by the Board; (iv) Transfers to Permitted Transferees made in compliance with this Agreement; and (v) a Transfer pursuant to the terms of a Deemed Liquidation Event (each of the foregoing is a "Permitted Transfer Event"); provided further, however, Janus and Norwest shall be permitted to Transfer any Shares Owned by Janus or Norwest: (i) after the third anniversary of the date of this Agreement with the consent of the Company and WP X Funds, which consents shall not be unreasonably withheld, conditioned or delayed; (ii) to each of their respective affiliated funds; (iii) pursuant to and in compliance with Rule 144 promulgated under the Securities Act and (iv) pursuant to a Deemed Liquidation Event; provided further, however CRG shall be permitted to Transfer any Shares Owned by it as if it were an Institutional Investor solely with respect to Section 3(a) (Resale of Securities) and subject to Section 3(c) (Right of First Refusal) in connection with Transfers after October 13, 2017.

(ii) Transfers by Permitted Transferees. A Permitted Transferee of Shares of an Other Investor pursuant to this Agreement may subsequently Transfer his, her or its Shares only to the Other Investor who Transferred such Shares to the Permitted Transferee or to a Person that is a Permitted Transferee of such Other Investor that originally transferred such shares to the Permitted Transferee. Each Permitted Transferee of any Other Investor to which Shares are Transferred shall, and such Other Investor shall, use commercially reasonable efforts to cause such Permitted Transferee to, Transfer back to such Other Investor (or to another Permitted Transferee of such Other Investor) the Shares it acquired from such Other Investor if such Permitted Transferee ceases to be a Permitted Transferee of such Other Investor.

(iii) Transfers - Generally. No Transfer of Shares Owned by any Investor may be made by such Investor unless (i) as a condition precedent to the Transfer, the Transferee has agreed in writing to be bound by the terms and conditions of this Agreement pursuant to a Joinder Agreement and have the same rights and obligations of such transferring Investor (including if the Investor is (I) Warburg Pincus (including the WP X Funds), the same rights and obligations as Warburg Pincus and the WP X Funds hereunder or (II) the Vertical Funds, the same rights and obligations as the Vertical Funds hereunder) (other than if (A) the Transfer is conducted pursuant to and in accordance with Section 3(d) (Tag-Along Rights) or Section 3(e) (Drag-Along Rights), or (B) the Transfer is to the Company or Warburg Pincus or the Vertical Funds), and (ii) the Transfer complies in all respects with the applicable provisions of this Agreement.

(c) Right of First Refusal.

(i) *Other Investor Right of First Refusal*. In the event that the Company and the WP X Funds consent in writing to a Transfer by an Other Investor that is otherwise not permitted pursuant to the terms of this Agreement, the Company and the WP X Funds may condition such Transfer on such Other Investor first offering to sell the Shares proposed to be Transferred to the Company or, failing its election to purchase, then to the Institutional Investors on terms that are mutually agreeable to the Company, the WP X Funds, the Vertical Funds and the Other Investor; provided, however, in no event shall either the Company or the WP X Funds be required to consent to any such Transfer by an Other Investor. In the event that an Other Investor proposes to Transfer Shares to a Person that is not otherwise permitted pursuant to the terms of this Agreement, the Company and the WP X Funds, in considering a request by an Other Investor to consent to such proposed Transfer, may require copies of the proposed terms to be given to the Company and the Institutional Investors, including the name and address of the prospective third party Transferee and the number of Shares involved in the proposed Transfer and the Company and the WP X Funds may condition such Transfer on such Other Investor first offering to sell the Shares proposed to be Transferred to the Company or, failing its election to purchase, then to the Institutional Investors on terms that have been proposed by such third party or such other terms that are mutually agreeable to the Company, the WP X Funds and the Other Investor.

(ii) *Institutional Investor Right of First Refusal*. Each of the Institutional Investors other than Warburg Pincus hereby unconditionally and irrevocably grants to the Company and then to the other Institutional Investors that are not Affiliates of such Institutional Investor (the "Unaffiliated Investors") a right of first refusal (the "Right of First Refusal") to purchase all or any portion of Shares that such Institutional Investor may propose to Transfer to a third party that is not an Affiliate of such Institutional Investor (a "Proposed Transfer"), at the same price and on the same terms and conditions as those offered to the proposed transferee.

(A) Before an Institutional Investor (other than Warburg Pincus) may effect a Proposed Transfer, such Institutional Investor (the "Transferring Institutional Investor") must provide, at the same time, the Company and the Unaffiliated Investors a written notice of the Proposed Transfer (the "Transfer Notice") stating: (a) such Transferring Institutional Investor's bona fide intention to transfer such Offered Shares (as defined below); (b) the number of each type and class of Shares to be Transferred (the "Offered Shares"); (c) the name address and relationship, if any, to the

Transferring Institutional Investor of each proposed purchaser or other transferee; and (d) the bona fide cash price, or in reasonable detail, other consideration, per share for which the Transferring Institutional Investor proposes to transfer such Offered Shares (the "Offered Price").

(B) If the Company desires to purchase all or any part of the Offered Shares, the company must, within a twenty (20) day period (the "Company Refusal Period") of receipt of the Transfer Notice, give written notice to the Transferring Institutional Investor and the Unaffiliated Investors which notice shall specify the number of Offered Shares the Company intends to purchase, or state that the Company does not intend to exercise its Right of First Refusal hereunder (the "Company Notice"). Notwithstanding any failure by the Company to deliver the Company's Notice, a failure by the Company to exercise its Right of First Refusal within the Company Refusal Period shall be deemed a waiver of such right.

(C) To the extent the Company does not purchase all of the Offered Shares, the Unaffiliated Investors shall have the opportunity to purchase the remaining Offered Shares. If any Unaffiliated Investors desires to purchase any of the remaining Offered Shares, such Unaffiliated Investor must, within a twenty (20) day period (the "Investor Refusal Period") commencing on receipt of the Company Notice (or if no notice is received, commencing on the expiration of the Company Refusal Period), give written notice (the "Investor Notice") to the Transferring Stockholder and to the Company of such Unaffiliated Investor's election to purchase any remaining Offered Shares and specifying the amount of Offered Shares such Unaffiliated Investor shall purchase. If multiple Unaffiliated Investors elect to purchase the Offered Shares not purchased by the Company, each such Unaffiliated Investor shall have a right to purchase up to its pro rata share of the Offered Shares not purchased by the Company, based on the number of shares of Common Stock held by such Unaffiliated Investor on an as converted basis as a percentage of the number of shares of Common Stock held by all Unaffiliated Investors on an as converted basis exercising such right.

(D) The purchase price for the Offered Shares to be purchased by the Company and/or the Unaffiliated Investor exercising its Right of First Refusal, as applicable, will be the Offered Price, and will be payable upon the ROFR Closing (as defined below) with respect to such Offered Shares. Payment of the purchase price will be made by the Company and/or the Unaffiliated Investor, as applicable, in cash or by wire transfer of immediately available funds or, if so provided in the offer of the prospective transferee, cash plus deferred payments of cash in the same proportions, and with the same terms of deferred payment as set forth therein.

(E) If the Offered Price for the Offered Shares is for consideration other than cash or cash plus deferred payments of cash, the Company and/or the Unaffiliated Investors exercising their Right of First Refusal, as applicable (the "Purchaser"), shall pay the cash equivalent of such other consideration. If the Transferring Institutional Investor and the Purchaser(s) cannot agree on the amount of such cash equivalent within ten (10) days after the beginning of the twenty (20) day period following the expiration of the Company Refusal Period or Investor Refusal Period, as applicable, any of such parties may, by three (3) days' written notice to the other, initiate appraisal proceedings under Section 3(c)(ii)(F) for determination of the cash equivalent; provided, however, in the event that there is more than one Purchaser, the determination by the Purchaser as to the

amount of the cash equivalent of such other consideration and any decision by the Purchaser to initiate appraisal proceedings shall be made jointly by the Purchasers. Notwithstanding anything to the contrary contained herein, any Purchaser may give written notice (a "Revocation Notice") to the Transferring Institutional Investor and all other Purchasers revoking an election to purchase the Offered Shares within ten (10) days after determination of the appraised value, if it chooses not to purchase the Offered Shares at such appraised value, it being understood and agreed that if there is more than one Purchaser, any such Purchaser or all such Purchasers may deliver a Revocation Notice revoking its or their election to purchase the Offered Shares in accordance with the foregoing terms, and any such Purchaser that has not so revoked its election to purchase the Offered Shares shall have the right, at any time within three (3) Business Days of receipt of a Revocation Notice to elect to purchase the Offered Shares with respect to which a Revocation Notice has been delivered, and if there is more than one Purchaser that has not so revoked its election to purchase Offered Shares, all such non-revoking Purchasers shall have the right to purchase the Offered Shares with respect to which a Revocation Notice was delivered (with such right to be exercised in writing to the Transferring Institutional Investor and all other Purchasers no later than three (3) Business Days after the delivery of the final Revocation Notice). If multiple non-revoking Purchasers elect to purchase such Offered Shares with respect to which a Revocation Notice was delivered, each such non-revoking Purchaser shall have a right to purchase up to its pro rata share of the Offered Shares with respect to which a Revocation Notice was delivered, based on the number of shares of Common Stock held by such non-revoking Purchaser on an as converted basis as a percentage of the number of shares of Common Stock held by all non-revoking Purchasers on an as converted basis exercising such right.

(F) If any party shall initiate an appraisal procedure to determine the amount of the cash equivalent of any consideration for Offered Shares under Section 3(c)(ii)(F), then the Transferring Institutional Investor, on the one hand, and the Purchaser seeking such appraisal (the "Appraising Purchaser"), on the other hand, shall each promptly appoint as an appraiser an individual who shall be a member of a nationally recognized investment banking firm; provided, however, in the event that there is more than one Appraising Purchaser, the nationally recognized investment banking firm appointed by the Appraising Purchaser shall be appointed jointly by all such Appraising Purchasers, with votes allocated in connection with such decision to each Appraising Purchaser proportionally based on the relative number of Offered Shares each Appraising Purchaser is proposing to purchase in such transaction. Each appraiser shall, within thirty (30) days of appointment, separately investigate the value of the consideration for the Offered Shares as of the proposed transfer date and shall submit a notice of an appraisal of that value to each party. Each appraiser shall be instructed to determine such value without regard to income tax consequences to the Transferring Institutional Investor as a result of receiving cash rather than other consideration. If the appraised values of such consideration (the "Earlier Appraisals") vary by less than ten percent (10%), the average of the two appraisals on a per share basis shall be controlling as the amount of the cash equivalent. If the appraised values vary by more than ten percent (10%), the appraisers, within ten (10) days of the submission of the last appraisal, shall appoint a third appraiser who shall be a member of a nationally recognized investment banking firm. The third appraiser shall, within thirty (30) days of his appointment, appraise the value of the consideration for the Offered Shares (without regard to the income tax consequences to the Transferring Institutional Investor as a result of receiving cash rather than other consideration) as of the proposed transfer date and submit notice

of his appraisal to each party. The value determined by the third appraiser shall be controlling as the amount of the cash equivalent unless the value is greater than the two Earlier Appraisals, in which case the higher of the two Earlier Appraisals will control, and unless that value is lower than the two Earlier Appraisals, in which case the lower of the two Earlier Appraisals will control. If any party fails to appoint an appraiser or if one of the two initial appraisers fails after appointment to submit his appraisal within the required period, the appraisal submitted by the remaining appraiser shall be controlling. The Transferring Institutional Investor and the Appraising Purchaser shall each bear the cost of its respective appointed appraiser. The cost of the third appraisal shall be shared one-half by the Transferring Institutional Investor and one-half by the Appraising Purchaser; provided, however, in the event that there is more than one Appraising Purchaser, any amounts payable by the Appraising Purchaser pursuant to the terms of this sentence and the immediately preceding sentence shall be allocated to and be paid by each Appraising Purchaser proportionally based on the relative number of Offered Shares each Appraising Purchaser is proposing to purchase in such transaction (whether or not the Offered Shares are actually purchased by such Appraising Purchasers).

(G) The closing of any purchase pursuant to this Section 3(c)(ii) (each, a "ROFR Closing") shall take place within twenty (20) days following the expiration of the Company Refusal Period or Investor Refusal Period, as applicable, at the office of the Company or such other location as shall be mutually agreeable to the Transferring Institutional Investor and the Purchaser(s) and the purchase price, to the extent comprised of cash, shall be paid at such ROFR Closing, and cash equivalents and documents evidencing any deferred payments of cash permitted pursuant to Section 3(c)(ii)(D) above shall be delivered at such ROFR Closing. At such ROFR Closing, the Transferring Institutional Investor shall deliver to the Purchaser the certificates evidencing the Offered Shares to be conveyed, duly endorsed and in negotiable form with all the requisite documentary stamps affixed thereto.

(H) If the Company or the Unaffiliated Investors have not elected to purchase all of the Offered Shares, then, subject to Section 3(d) below, the Transferring Institutional Investor may transfer the remaining portion of the Offered Shares proposed to be sold by the Transferring Institutional Investor, to any person named as a purchaser or other transferee in the Transfer Notice, at the Offered Price or at a higher price, provided that such Transfer (i) is consummated within ninety (90) days after the date of the Transfer Notice and (ii) is in accordance with all the terms of this Agreement. If the Offered Shares are not so transferred during such ninety (90) day period, the Transferring Institutional Investor may not Transfer any of such Offered Shares without complying again in full with the provisions of this Agreement.

(I) The limitations of this Section 3(c)(ii) shall not apply to (i) sales by Tag-Along Investors (as defined below) pursuant to Section 3(d) hereof, (ii) sales by Institutional Investors pursuant to Section 3(e) hereof, (iii) a sale of the entire Company (whether by means of a stock sale, merger, consolidation or otherwise) or (iv) Transfers to Affiliates and legal advisors of such Transferring Institutional Investor.

(d) Tag-Along Rights.

(i) In the event any Other Investor intends to Transfer any Shares Owned by such Other Investor (other than Transfers to any Permitted Transferee or to the Company or Warburg Pincus or the Vertical Funds) in a Transfer that is permitted pursuant to the terms of this Agreement, such Other Investor (the "Selling Investor") shall notify the Institutional Investors, Janus and Norwest (the "Tag-Along Investors"), in writing, of such proposed Transfer and its terms and conditions. Within five (5) Business Days of the date of such notice, each Tag-Along Investor shall notify the Selling Investor if he, she or it elects to participate in such Transfer. Any Tag-Along Investor that fails to notify the Selling Investor within such five (5) Business Day period shall be deemed to have waived his, her or its rights hereunder. Each Tag-Along Investor that so notifies the Selling Investor shall have the right to sell, at the same price (subject to the provisions below) and on the same terms and conditions as the Selling Investor, an amount of Shares (excluding for purposes of this Section 3(d) any Granted Equity Shares (whether or not vested)) equal to the Shares the third party actually proposes to purchase multiplied by a fraction, the numerator of which shall be the number of Shares Owned (excluding any Granted Equity Shares (whether or not vested)) by such Tag-Along Investor and the denominator of which shall be the aggregate number of Shares Owned (excluding any Granted Equity Shares (whether or not vested)) by the Selling Investor and each Tag-Along Investor exercising his, her or its rights under this Section 3(d). Notwithstanding the foregoing, in the event the Selling Investor is selling only shares of Preferred Stock, Tag-Along Investors shall only have the right to sell such series of Preferred Stock as is being sold by the Selling Investor and shall not have the right to sell shares of Common Stock or any other series of Preferred Stock.

(ii) Notwithstanding anything contained in this Section 3(d) (Tag-Along Rights), in the event that all or a portion of the purchase price consists of securities and the Transfer of such securities to the Tag-Along Investors would require either a registration under the Securities Act or the preparation of a disclosure document pursuant to Regulation D under the Securities Act (or any successor regulation) or a similar provision of any state securities law, then, at the option of the Selling Investor, any one or more of the applicable Tag-Along Investors may receive, in lieu of such securities, the fair market value of such securities in cash, as determined in good faith by the Selling Investor.

(iii) The provisions of this Section 3(d) (Tag-Along Rights) shall not apply to a merger, reorganization, consolidation, liquidation or winding up involving the Company. The provisions of this Section 3(d) (Tag-Along Rights) shall also not apply to a sale or other Transfer pursuant to which the Majority Holders have exercised their drag-along rights set forth herein.

(iv) Norwest Tag-Along Rights.

(A) In the event an Institutional Investor intends to Transfer any Shares Owned by such Institutional Investor (other than Transfers to any Permitted Transferee, Transfers pursuant to Section 3(d)(i)-(iii) and Transfers pursuant to Section 3(e) (Drag Along Rights)) in a Transfer that is permitted pursuant to the terms of this Agreement, such Institutional Investor (the "Selling Institutional Investor") shall notify Norwest, in writing, of such proposed Transfer and its terms and conditions. Within five (5) Business Days of the date of such notice, Norwest shall notify the Selling Institutional

Investor if it elects to participate in such Transfer. If Norwest fails to notify the Selling Institutional Investor within such five (5) Business Day period, then Norwest shall be deemed to have waived its rights hereunder. Norwest shall have the right to sell, at the same price (subject to the provisions below) and on the same terms and conditions as the Selling Institutional Investor, an amount of Shares equal to the Shares the third party actually proposes to purchase multiplied by a fraction, the numerator of which shall be the number of Shares Owned by Norwest and the denominator of which shall be the aggregate number of Shares Owned by the Selling Institutional Investor and Norwest. Notwithstanding the foregoing, in the event that the Selling Institutional Investor is selling a series of Preferred Stock, that is senior to the Preferred Stock held by Norwest, Norwest shall only have the right to sell such series of Preferred Stock as is being sold by the Selling Institutional Investor and shall not have the right to sell shares of Common Stock or any other junior series of Preferred Stock.

(B) The provisions of this Section 3(d)(iv) (Norwest Tag-Along Rights) shall not apply to a merger, reorganization, consolidation, liquidation or winding up involving the Company or the sale of a security by a Selling Institutional Investor that is senior to that held by Norwest. The provisions of this Section 3(d)(iv) (Norwest Tag-Along Rights) shall also not apply to a sale or other Transfer pursuant to which the Majority Holders have exercised their drag-along rights set forth herein.

(e) Drag Along Right.

(i) If at any time and from time to time after the date of this Agreement, Warburg Pincus and its Affiliates together with any other stockholders that would result in an aggregate ownership of greater than fifty percent (50%) of the Company's voting power (the "Majority Holders") desire to (i) Transfer in a bona fide arms' length sale all of their Shares to any Person or Persons who are not Affiliates of the Company or the Majority Holders, (ii) approve any merger of the Company with or into any other Person who is not an Affiliate of the Company or the Majority Holders, including any transaction that would constitute a Deemed Liquidation Event, or (iii) approve any sale of all or substantially all of the Company's assets to any Person or Persons who are not Affiliates of the Company or the Majority Holders, including any transaction that would constitute a Deemed Liquidation Event (for purposes of this Section 3(e) (Drag-Along Right), such Person or Persons is referred to as the "Proposed Transferee") (such Transfers set forth in (i), (ii) and (iii), a "Proposed Sale"), the Majority Holders shall have the right (for purposes of Section 3(e), the "Drag-Along Right"), but not the obligation, (x) in the case of a Transfer of the type referred to in clause (i), to require each other Investor to sell to the Proposed Transferee all of such Investor's Shares for the Per Share Drag-Along Purchase Price (as defined below), or (y) in the case of a merger or sale of assets or other Deemed Liquidation Event referred to in clauses (ii) or (iii), to require each other Investor to vote (or act by written consent with respect to) all Shares then Owned by such other Investor in favor of such transaction and to waive any dissenters' rights, appraisal rights or similar rights such Investor may have under applicable law. Each Investor agrees to take all steps necessary to enable such Investor to comply with the provisions of this Section 3(e) to facilitate the Majority Holders' exercise of a Drag-Along Right. As used herein, "Per Share Drag-Along Purchase Price" means: (i) to the extent that an Investor subject to the Drag-Along Right is selling the same security being sold by any of the Majority Holders, the same consideration per

share for such security as is proposed to be received by such Majority Holders (less, in the case of Share Equivalents, the exercise price for such Share Equivalents), including equivalent rights to receive (when and if paid) a proportionate share of any deferred consideration, earn-out or escrow funds that may become available to such Majority Holders in connection with the proposed transaction; and (ii) to the extent that an Investor subject to the Drag-Along Right is selling Common Stock (including any Share Equivalents) or a series of Preferred Stock other than any series of Preferred Stock being sold by the Majority Holders, the Per Share Drag-Along Purchase Price for each Share of Common Stock or Preferred Stock, as applicable, shall be equal to the implied equity value of each Share of Common Stock (less, in the case of Share Equivalents, the exercise price for such Share Equivalents) or Preferred Stock as applicable, as determined by reference to the per share price being paid for the Shares of Common Stock or Preferred Stock, as applicable, being sold by the Majority Holders and after giving effect to all amounts payable to the holders of Preferred Stock prior and in preference to the Common Stock pursuant to the liquidation preference provisions of the Certificate of Incorporation; provided, however, that if the per share price being paid for the Shares of Common Stock or Preferred Stock, as applicable, being sold by the Majority Holders includes any rights to receive a proportionate share of any deferred consideration, earn-out or escrow funds that may become available to the Majority Holders in connection with the proposed transaction, such amounts shall be considered when determining the implied equity price of each Share of Common Stock or Preferred Stock, as applicable, but any portion of such amount included in the implied equity price of each Share of Common Stock shall not be paid to the Investors selling Common Stock unless and until the portions of such amount included in the price per share being paid for the Preferred Stock are paid to the holders of the Preferred Stock and only to the extent that the holders of the Preferred Stock have received all amounts payable to the holders of Preferred Stock prior and in preference to the Common Stock pursuant to the liquidation preference provisions of the Certificate of Incorporation. Notwithstanding the foregoing, the aggregate consideration receivable by all holders of the Preferred Stock and Common Stock in connection with a Proposed Sale shall be allocated among the holders of Preferred Stock and Common Stock on the basis of the relative liquidation preferences to which the holders of each respective series of Preferred Stock and the holders of Common Stock are entitled in a Deemed Liquidation Event (assuming for this purpose that the Proposed Sale is a Deemed Liquidation Event) in accordance with the Company's Certificate of Incorporation in effect immediately prior to the Proposed Sale.

(ii) To exercise a Drag-Along Right, the Majority Holders shall give each Investor a written notice (for purposes of this Section 3(e), a "Drag-Along Notice") containing the proposed Per Share Drag-Along Purchase Price for each security proposed to be sold, terms of payment and other material terms and conditions of the Proposed Transferee's offer. Each Investor shall thereafter be obligated to sell or vote (or act by written consent with respect to) all Shares (including any Share Equivalents) Owned by such Investor, provided that the sale to the Proposed Transferee is consummated within one hundred eighty (180) days of delivery of the Drag-Along Notice. If the sale, merger or other transaction contemplated by this Section 3(e) is not consummated within such 180-day period, then each Investor shall no longer be obligated to sell such Shares Owned by such Investor pursuant to that specific Drag-Along Right but shall remain subject to the provisions of this Section 3(e) (Drag-Along Right).

(iii) Each Investor shall execute and deliver such instruments of conveyance and transfer and take such other action, including executing any purchase agreement, merger agreement, indemnity agreement, escrow agreement or related documents, as may be reasonably required by the Majority Holders or the Company in order to carry out the terms and provisions of this Section 3(e) (Drag-Along Right); provided, however, that no Investor shall be required to be bound by representations and warranties or covenants that are not applicable to all Investors. Each Investor (other than Janus and Norwest) acknowledges the rights of the WP X Funds to act on behalf of such Investor pursuant to Section 7(k) (Grant of Irrevocable Proxy). At the closing of the proposed transaction, each Investor shall deliver, against receipt of the consideration payable in such transaction, certificates representing the Shares which the Investor Owns, together with executed stock powers or other instruments of transfer acceptable to the Majority Holders.

(iv) Notwithstanding anything contained in this Section 3(e) (Drag-Along Right), in the event that all or a portion of the Per Share Drag-Along Purchase Price consists of securities and the sale of such securities to the Investors would require either a registration under the Securities Act or the preparation of a disclosure document pursuant to Regulation D under the Securities Act (or any successor regulation) or a similar provision of any state securities law, then, at the option of the Majority Holders, any one or more of the applicable Investors may receive, in lieu of such securities, the fair market value of some or all of such securities in cash, as determined in good faith by the Majority Holders.

(f) Subscription Right.

(i) If at any time after the date hereof and prior to the Initial Public Offering, the Company proposes to issue equity securities of any kind (for purposes of this Section 3(f), the term "equity securities" shall include any warrants, options or other rights to acquire equity securities or debt securities convertible into equity securities) of the Company (other than the issuance of securities (i) upon conversion of the Existing Series A Preferred, Series B Preferred Stock or Series C Preferred Stock pursuant to the Certificate of Incorporation, (ii) to the public in a firm commitment underwriting pursuant to a registration statement filed under the Securities Act, (iii) pursuant to the acquisition of another Person by the Company or any subsidiary, whether by purchase of stock, merger, consolidation, purchase of all or substantially all of the assets of such Person or otherwise, provided such acquisition has been approved by the Board and such securities are being issued as consideration for the transaction and not in connection with financing the transaction, (iv) pursuant to an employee stock option plan, stock bonus plan, stock purchase plan, employment agreement or other management equity program approved by the Board, (v) to vendors, lenders and customers of and consultants to the Company or any subsidiary or in connection with a strategic partnership (provided such securities are being issued as consideration for the strategic partnership and not in connection with financing the strategic partnership), in each case, to the extent such issuance has been approved by the Board, (vi) by reason of a dividend, stock split or other distribution on shares of Common Stock, (vii) to one or more of the Institutional Investors and/or their Affiliates pursuant to the terms of the Stock Purchase Agreement, or (viii) to any Other Investor pursuant to the terms of any employment or similar agreement between the Company and such Other Investor to the extent such employment or similar agreement was approved by the Board,

then, subject to the provisions set forth below, including Section 3(f)(vi) below, as to each Institutional Investor, Janus, Norwest and as to each Other Investor approved in writing by the WP X Funds to be listed on Schedule III hereto, provided that such Other Investor is an employee of the Company or its subsidiaries at such time (each a "Subscription Right Investor"), the Company shall:

(A) give written notice setting forth in reasonable detail (1) the designation and all of the terms and provisions of the securities proposed to be issued (the "Proposed Securities"), including, where applicable, the voting powers, preferences and relative participating, optional or other special rights, and the qualification, limitations or restrictions thereof and interest or dividend rate and maturity; (2) the price and other terms of the proposed sale of such securities; (3) the amount of such securities proposed to be issued; and (4) such other information as a Subscription Right Investor may reasonably request in order to evaluate the proposed issuance; and

(B) offer to issue to each such Subscription Right Investor a portion of the Proposed Securities equal to a percentage determined by dividing (x) the number of shares of Common Stock Owned by such Subscription Right Investor as a result of Purchased Equity Shares (excluding, for the sake of clarity, any Granted Equity Shares, whether or not vested) on an as converted basis, by (y) the total number of shares of Common Stock then outstanding on a Fully Diluted Basis.

Notwithstanding the foregoing, Janus and Norwest shall not be entitled to participate in any offering for Proposed Securities pursuant to Section 3(f) unless any Warburg Pincus Entity (as defined below) participates in such offering to purchase Proposed Securities.

(ii) Each such Subscription Right Investor must exercise his, her or its purchase rights hereunder within ten (10) days after receipt of such notice from the Company or such shorter period as may be required by the Company if the Company determines in good faith that a shorter period is necessary. If all of the Proposed Securities offered to such Subscription Right Investors are not fully subscribed for by such Subscription Right Investors, the remaining Proposed Securities will be reoffered to the Subscription Right Investors purchasing their full allotment upon the terms set forth in this Section 3(f) (Subscription Right), until all such Proposed Securities are fully subscribed for or until all such Subscription Right Investors have subscribed for all such Proposed Securities which they desire to purchase, except that such Subscription Right Investors must exercise their purchase rights within three (3) Business Days after receipt of all such reoffers or such shorter period as may be required by the Company if the Company determines in good faith that a shorter period is necessary. To the extent that the Company offers two or more securities to all prospective purchasers in a proposed issuance in units, such as convertible notes coupled with attached warrants (and only in such units), such Subscription Right Investors must purchase such units as a whole and will not be given the opportunity to purchase only one of the securities making up such unit.

(iii) Upon the expiration of the offering periods described above (as such periods may be shortened by the Company), the Company will be free to sell such Proposed Securities that such Subscription Right Investors have not elected to purchase during the ninety

(90) days following such expiration on terms and conditions not materially more favorable to the purchasers thereof than those offered to such Subscription Right Investors. Any Proposed Securities offered or sold by the Company after such ninety (90)-day period must be reoffered to such Subscription Right Investors pursuant to this Section 3(f) (Subscription Right).

(iv) The election by a Subscription Right Investor not to exercise such Subscription Right Investor's subscription rights under this Section 3(f) (Subscription Right) in any one instance shall not affect such Subscription Right Investor's right (other than in respect of a reduction in such Subscription Right Investor's percentage holdings) as to any subsequent proposed issuance subject to this Section 3(f) (Subscription Right). If the Company determines in good faith that circumstances require the Company to sell the Proposed Securities to the Institutional Investors or their respective Affiliates, the Company shall be permitted to sell such Proposed Securities to such Institutional Investors and/or their respective Affiliates provided, that, promptly following such sale, the Company permits each Subscription Right Investor having rights under this Section 3(f) (Subscription Right) to purchase such Subscription Right Investor's proportionate amount of such Proposed Securities in the manner contemplated by this Section 3(f) (Subscription Right).

(v) Each such Subscription Right Investor shall, if requested by the Company and the Institutional Investors participating in such issuance of equity securities, execute a stockholders agreement (or consent to an amendment to this Agreement) with respect to such Proposed Securities with terms that are (to the extent practicable) substantially equivalent to the terms of this Agreement.

4. AFFILIATE TRANSACTIONS

The Company shall not, shall not permit any subsidiary to, either directly or indirectly, by amendment, merger, consolidation or otherwise, enter into certain transactions between the Company, on the one hand, and Warburg Pincus or its Affiliates (each, a "Warburg Pincus Entity" and together the "Warburg Pincus Entities"), on the other hand (an "Affiliate Transaction"), unless such Affiliate Transaction is approved by the vote or written consent of the holders of at least 70% of the then outstanding shares of Series C Preferred Stock, provided, that such approval or consent shall not be required for (i) any agreement, contract or transaction (including the Stock Purchase Agreement) on arm's-length terms and/or approved by a majority of the disinterested directors, (ii) any issuance of equity or convertible debt securities to the Warburg Pincus Entities, in each case, as long as the preemptive rights, recapitalization and/or other applicable provisions of the Company's Certificate of Incorporation or bylaws or this Agreement are not violated, (iii) any transaction expressly permitted or effected pursuant to the terms of the Company's Certificate of Incorporation or bylaws, this Agreement, or the Registration Rights Agreement and/or (iv) any exculpation, indemnification or reimbursement, payment or advancement of expenses pursuant to the Company's Certificate of Incorporation or bylaws, this Agreement, the Registration Rights Agreement, any director indemnification agreement or any of the governance documents of any subsidiary of the Company.

5. TERMINATION.

(a) Termination of Agreement.

(i) Upon the closing of a Qualified Public Offering or, at the written election of the Majority Institutional Investors, an Initial Public Offering, this Agreement shall automatically terminate except with respect to the following Sections which shall survive such termination in accordance with their terms:

(A) Section 1(a) (Legends);

(B) Sections 2(a)(ii) and 2(a)(iii) (Post-IPO Board Seat);

(C) Section 2(c) (Committees of the Board);

(D) Section 2(d) (Directors of Subsidiaries);

(E) Section 2(e) (Indemnification, Expense Reimbursement and Other Rights);

(F) Section 5 (Termination);

(G) Section 6 (Interpretation of this Agreement); and

(H) Section 7 (Miscellaneous) (except Section 7(k) (Grant of Irrevocable Proxy), which shall terminate).

(ii) At the written election of the Majority Institutional Investors, upon a Deemed Liquidation Event this Agreement shall terminate.

(iii) This Agreement shall terminate on the date on which the Majority Institutional Investors, the Majority Other Investors and the Company shall have agreed in writing to terminate this Agreement.

6. INTERPRETATION OF THIS AGREEMENT

(a) Terms Defined. As used in this Agreement, the following terms have the respective meaning set forth below:

Affiliate: shall mean any Person or entity, directly or indirectly controlling, controlled by or under common control with such Person or entity, including, but not limited to, (i) a general partner, limited partner, or retired partner affiliated with such Person or entity, (ii) a fund, partnership, limited liability company or other entity that is affiliated with such Person or entity, (iii) a director, officer, stockholder, partner or member (or retired partner or member) affiliated with such Person or entity, or (iv) or to the estate of any such partner or member (or retired partner or member) affiliated with such Person or entity. Notwithstanding the above, neither the Company nor any of its subsidiaries shall be deemed to be an Affiliate of any of the Investors.

Business Day: shall mean any day other than a Saturday, Sunday or a day on which banks in New York, New York are authorized or obligated by law or executive order to close.

Certificate of Incorporation: shall mean the Sixth Amended Certificate of Incorporation of the Company as it may be amended from time to time, including pursuant to a Certificate of Designations, if any.

Common Stock: shall mean the common stock, par value $0.001 per share, of the Company.

CRG shall mean CRG Partners III L.P., CRG Partners III – Parallel Fund "A" L.P., CRG Partners III – Parallel Fund "B" (Cayman) L.P., and CRG Partners III (Cayman) L.P

Deemed Liquidation Event: shall have the meaning set forth in the Certificate of Incorporation.

Exchange Act: shall mean the Securities Exchange Act of 1934, as amended, including the rules and regulations promulgated thereunder, or any successor statute thereto.

Existing Series A Preferred: shall mean the shares of Series A Preferred Stock, par value $0.001 per share, of the Company and the Series A-1 Preferred Stock, par value $0.001 per share, of the Company issued and outstanding as of the date of this Agreement.

Fully Diluted Basis: shall mean all outstanding shares of the Common Stock assuming (i) the conversion of all outstanding shares of Existing Series A Preferred, Series B Preferred Stock and Series C Preferred Stock and (ii) the exercise of all outstanding Share Equivalents without regard to any restrictions or conditions with respect to the exercisability of such Share Equivalents.

Granted Equity Shares: shall mean shares of Common Stock or Share Equivalents that are granted or issued pursuant to any of the Company's stock option plans, stock bonus plans, stock incentive plans or other similar plans approved by the Board.

Janus shall mean Janus Henderson Global Life Sciences Fund and Janus Capital Funds PLC on Behalf of its Series Janus Global Life Sciences Fund and their Affiliates.

Majority Institutional Investors: shall mean Institutional Investors Owning a majority of the Shares Owned by all Institutional Investors.

Majority Other Investors: shall mean Other Investors Owning a majority of the Shares (excluding for this purpose any Granted Equity Shares that are not vested) Owned by the Other Investors.

Norwest shall mean Norwest Venture Partners XIII, L.P. and its Affiliates.

Owns, Own, Owning or Owned: shall mean beneficial ownership, assuming the conversion (whether or not then convertible) of all outstanding securities convertible (including Existing Series A Preferred, Series B Preferred Stock or Series C Preferred Stock) into Common Stock and the exercise of all outstanding Share Equivalents.

Permitted Transferee: shall mean, (i) in the case of any Institutional Investor or any Other Investor that is not a natural person, any Affiliate of such Investor and (ii) in the case of Other Investors who are natural persons, any trust established for the sole benefit of such Other Investor or such Other Investor's spouse or direct lineal descendents provided such Other Investor is the trustee of such trust, or any Person in which the direct and beneficial owner of all voting securities of such Person is such Other Investor, or such Other Investor's heirs, executors, administrators or personal representatives upon the death, incompetency or disability of such Other Investor.

Person: shall mean an individual, partnership (whether general or limited), joint-stock company, corporation, limited liability company, trust or unincorporated organization, and a government or agency or political subdivision thereof.

Preferred Stock: shall mean the Series A Preferred Stock, par value $0.001 per share, of the Company, the Series A-1 Preferred Stock, par value $0.001 per share, of the Company, the Series B Preferred Stock and the Series C Preferred Stock.

Purchased Equity Shares: shall mean shares of Common Stock or Share Equivalents (including the Existing Series A Preferred, Series B Preferred Stock and Series C Preferred Stock) that are purchased for value by an Investor from the Company pursuant to the Stock Purchase Agreement or otherwise. In no event shall Granted Equity Shares be deemed to be Purchased Equity Shares.

Qualified Public Offering: shall mean an Initial Public Offering that would qualify for mandatory conversion of the Existing Series A Preferred, Series B Preferred Stock and Series C Preferred Stock pursuant to the Certificate of Incorporation.

Registration Rights Agreement: shall mean that certain Amended and Restated Registration Rights Agreement dated as of July 7, 2017 by and among the Company and the stockholders named therein, as the same may be amended from time to time.

SEC: shall mean the Securities and Exchange Commission or any successor agency.

Security, Securities: shall have the meaning set forth in Section 2(1) of the Securities Act.

Securities Act: shall mean the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder, or any successor statute thereto.

Series B Preferred Stock: shall mean Series B Preferred Stock, par value $0.001 per share, of the Company.

Series C Preferred Stock: shall mean Series C Preferred Stock, par value $0.001 per share, of the Company.

Share Equivalent: shall mean any stock, warrants, rights, calls, options or other securities exchangeable or exercisable for, or convertible into, directly or indirectly, Shares of Common Stock.

Transfer: shall mean any sale, assignment, pledge, transfer, hypothecation or other disposition or encumbrance, and each of "Transferred", "Transferee" and "Transferor" have a correlative meaning.

Vertical Funds: shall mean Vertical Fund I, L.P., a Delaware limited partnership, and Vertical Fund II, L.P., a Delaware limited partnership.

(b) Accounting Principles. Where the character or amount of any asset or amount of any asset or liability or item of income or expense is required to be determined or any consolidation or other accounting computation is required to be made for the purposes of this Agreement, this shall be done in accordance with U.S. generally accepted accounting principles at the time in effect, to the extent applicable, except where such principles are inconsistent with the requirements of this Agreement.

(c) Directly or Indirectly. Where any provision in this Agreement refers to action to be taken by any Person, or which such Person is prohibited from taking, such provision shall be applicable whether such action is taken directly or indirectly by such Person.

(d) Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware applicable to contracts made and to be performed entirely within such State.

(e) Section Headings. The headings of the sections and subsections of this Agreement are inserted for convenience only and shall not be deemed to constitute a part thereof.

7. MISCELLANEOUS

(a) Notices.

(i) All communications under this Agreement shall be in writing and shall be delivered by hand or facsimile or mailed by overnight courier or by registered or certified mail, postage prepaid:

(A) if to any of the Investors, at the address or facsimile number of such Investor shown on Schedule I or Schedule II, or at such other address as the Investor may have furnished the Company and the other Investors in writing; and

(B) if to the Company, at 735 Pastoria Avenue, Sunnyvale, CA 94085-2918, marked for attention of the Chief Executive Officer, with a copy (which shall not constitute notice) to: Wilson Sonsini Goodrich & Rosati, P.C. (facsimile: (650-493-6811), marked for attention of Philip Oettinger, or at such other address as it may have furnished in writing to each of the Investors.

(ii) Any notice so addressed shall be deemed to be given: if delivered by hand or facsimile, on the date of such delivery if a Business Day and delivered during regular business hours, otherwise the first Business Day thereafter; if mailed by overnight courier, on the date of delivery; and if mailed by registered or certified mail, on the third Business Day after the date of such mailing.

(b) Reproduction of Documents. This Agreement and all documents relating thereto, including, without limitation, (i) consents, waivers and modifications which may hereafter be executed, (ii) documents received by each Investor pursuant hereto and (iii) financial statements, certificates and other information previously or hereafter furnished to each Investor, may be reproduced by each Investor by photographic, photostatic, microfilm, microcard, miniature photographic or other similar process and each Investor may destroy any original document so reproduced. All parties hereto agree and stipulate that any such reproduction shall be admissible in evidence as the original itself in any judicial or administrative proceeding (whether or not the original is in existence and whether or not such reproduction was made by each Investor in the regular course of business) and that any enlargement, facsimile or further reproduction of such reproduction shall likewise be admissible in evidence.

(c) Successors and Assigns. This Agreement shall inure to the benefit of and be binding upon the successors and permitted assigns of each of the parties, provided that no Other Investor shall be permitted to assign any of his, her or its rights or obligations pursuant to this Agreement without the prior written consent of the WP X Funds, unless such assignment is in connection with a Transfer explicitly permitted by this Agreement and, prior to such assignment, such assignee complies with the requirements of this Agreement and provided, further, that, notwithstanding anything contained in this Agreement to the contrary, the observer rights provided to Janus pursuant to Section 2(f) and the right to designate a Series C Director provided to Norwest pursuant to Section 2(a)(i), shall only be transferable with the Company's written consent (which consent shall not be unreasonably withheld, conditioned or delayed) in connection with any Transfer by Janus or Norwest, respectively. Any attempted assignment by an Other Investor in violation of the foregoing shall be null and void.

(d) Entire Agreement; Amendment and Waiver. This Agreement, the Stock Purchase Agreement and the Registration Rights Agreement constitute the entire understanding of the parties hereto and supersede all prior agreements or understandings with respect to the subject matter hereof among such parties. This Agreement may be amended, and the observance of any term of this Agreement may be waived, with (and only with) the written consent of the Majority Institutional Investors, provided that any amendment, modification or waiver that would affect the rights, benefits or obligations of Norwest shall require the written consent of Norwest only if (i) such amendment, modification or waiver would materially and adversely affect such rights, benefits or obligations of Norwest and (ii) such amendment, modification or waiver would treat Norwest in a materially worse manner than the manner in which such amendment or waiver treats the other Institutional Investors and provided further that any amendment, modification or waiver that would affect the rights, benefits or obligations of Janus shall require the written consent of Janus only if (i) such amendment, modification or waiver would materially and adversely affect such rights, benefits or obligations of Janus and (ii) such amendment, modification or waiver would treat Janus in a materially worse manner than the manner in which such amendment or waiver treats the other Institutional Investors. For the avoidance of doubt, any amendment, modification or waiver of Section 4 shall require the consent of both Janus and Norwest. The Company shall give notice of any amendment or termination hereof or waiver hereunder to any party hereto that did not consent in writing to such amendment, termination, or waiver. Any amendment, termination, or waiver

effected in accordance with this Section 7(d) shall be binding on all parties hereto, regardless of whether any such party has consented thereto.

(e) Severability. In the event that any part or parts of this Agreement shall be held illegal or unenforceable by any court or administrative body of competent jurisdiction, such determination shall not affect the remaining provisions of this Agreement which shall remain in full force and effect.

(f) Further Assurances. In connection with this Agreement and the transactions contemplated hereby, each Investor shall execute and deliver any additional documents and instruments and perform any additional acts necessary or appropriate to effectuate and perform the provisions of this Agreement and those transactions.

(g) No Partnership. Nothing in this Agreement and no actions taken by the parties under this Agreement shall constitute a partnership, association or other co-operative entity between any of the parties or cause any party to be deemed the agent of any other party for any purpose.

(h) Specific Performance. It is hereby agreed and acknowledged that it will be impossible to measure in money the damages that would be suffered if the parties fail to comply with any of the obligations herein imposed on them and that, in the event of any such failure, an aggrieved Person will be irreparably damaged and will not have an adequate remedy at law. Any such party shall, therefore, be entitled (in addition to any other remedy to which such party may be entitled at law or in equity) to injunctive relief, including specific performance, to enforce such obligations, without the posting of any bond and if any action should be brought in equity to enforce any of the provisions of this Agreement, none of the parties hereto shall raise the defense that there is an adequate remedy at law.

(i) Third Party Beneficiaries. This Agreement does not create any rights, claims or benefits inuring to any Person that is not a party hereto, and it does not create or establish any third party beneficiary hereto.

(j) Counterparts. This Agreement may be executed in two or more counterparts (including by facsimile), each of which shall be deemed an original and all of which together shall be considered one and the same agreement.

(k) **GRANT OF IRREVOCABLE PROXY. EACH OTHER INVESTOR (OTHER THAN JANUS OR NORWEST) HEREBY GRANTS TO EACH OF THE WP X FUNDS SUCH OTHER INVESTOR'S PROXY, AND APPOINTS EACH OF THE WP X FUNDS, OR ANY DESIGNEE OR NOMINEE OF THE WP X FUNDS, AS SUCH OTHER INVESTOR'S ATTORNEY-IN-FACT (WITH FULL POWER OF SUBSTITUTION AND RESUBSTITITION), FOR AND IN ITS NAME, PLACE AND STEAD, (I) TO VOTE OR ACT BY WRITTEN CONSENT WITH RESPECT TO THE GRANTED EQUITY SHARES (WHETHER OR NOT VESTED) NOW OR HEREAFTER OWNED BY SUCH OTHER INVESTOR (OR ANY TRANSFEREE THEREOF) (INCLUDING THE RIGHT TO SIGN HIS, HER OR ITS NAME TO ANY CONSENT, CERTIFICATE OR OTHER DOCUMENT RELATING TO THE COMPANY THAT DELAWARE LAW MAY REQUIRE) IN**

CONNECTION WITH ANY AND ALL MATTERS, INCLUDING, WITHOUT LIMITATION, MATTERS SET FORTH HEREIN AS TO WHICH ANY VOTE OR ACTIONS MAY BE REQUESTED OR REQUIRED; (II) TO VOTE OR ACT BY WRITTEN CONSENT WITH RESPECT TO THE SHARES (INCLUDING ANY PURCHASED EQUITY SHARES OR GRANTED EQUITY SHARES) NOW OR HEREAFTER OWNED BY SUCH OTHER INVESTOR (OR ANY TRANSFEREE THEREOF) (INCLUDING THE RIGHT TO SIGN HIS, HER OR ITS NAME TO ANY CONSENT, CERTIFICATE OR OTHER DOCUMENT RELATING TO THE COMPANY THAT APPLICABLE LAW MAY REQUIRE) IN CONNECTION WITH ANY AND ALL MATTERS CONTEMPLATED BY SECTION 3(E) (DRAG-ALONG RIGHT), (III) TO TAKE ANY AND ALL REASONABLE ACTION NECESSARY TO SELL OR OTHERWISE TRANSFER ANY SHARES (INCLUDING ANY PURCHASED EQUITY SHARES OR GRANTED EQUITY SHARES) OWNED BY SUCH OTHER INVESTOR AS CONTEMPLATED BY SECTION 3(E) (DRAG-ALONG RIGHT) HEREOF AND (IV) WITH RESPECT TO OTHER INVESTORS THAT ARE NOT EMPLOYEES OF THE COMPANY OR ITS SUBSIDIARIES (INCLUDING FORMER EMPLOYEES), TO VOTE OR ACT BY WRITTEN CONSENT WITH RESPECT TO THE PURCHASED EQUITY SHARE NOW OR HEREAFTER OWNED BY SUCH OTHER INVESTOR (OR ANY TRANSFEREE THEREOF) (INCLUDING THE RIGHT TO SIGN HIS, HER OR ITS NAME TO ANY CONSENT, CERTIFICATE OR OTHER DOCUMENT RELATING TO THE COMPANY THAT DELAWARE LAW MAY REQUIRE) IN CONNECTION WITH ANY AND ALL MATTERS, INCLUDING, WITHOUT LIMITATION, MATTERS SET FORTH HEREIN AS TO WHICH ANY VOTE OR ACTIONS MAY BE REQUESTED OR REQUIRED. THIS PROXY IS COUPLED WITH AN INTEREST AND SHALL BE IRREVOCABLE, AND EACH SUCH OTHER INVESTOR WILL TAKE SUCH FURTHER ACTION OR EXECUTE SUCH OTHER INSTRUMENTS AS MAY BE REASONABLY NECESSARY TO EFFECTUATE THE INTENT OF THIS PROXY AND, EXCEPT WITH RESPECT TO ANY OTHER PROXY GIVEN BY AN OTHER INVESTOR TO THE COMPANY OR WARBURG PINCUS, HEREBY REVOKES ANY PROXY PREVIOUSLY GRANTED BY SUCH OTHER INVESTOR WITH RESPECT TO SUCH OTHER INVESTOR'S SHARES. IN THE EVENT THAT THE PROXY GRANTED IN THIS SECTION 7(K) (GRANT OF IRREVOCABLE PROXY) IS INCONSISTENT WITH THE TERMS OF ANY OTHER PROXY GRANTED BY AN OTHER INVESTOR TO THE WP X FUNDS OR ANY OTHER PERSON, INCLUDING PURSUANT TO ANY STOCK INCENTIVE OR OTHER EQUITY COMPENSATION PLAN OF THE COMPANY, THEN THE TERMS OF THE PROXY GRANTED IN THIS SECTION 7(K) (GRANT OF IRREVOCABLE PROXY) SHALL GOVERN. IN THE EVENT THAT ANY OR ALL PROVISION OF THIS SECTION 7(K) (GRANT OF IRREVOCABLE PROXY) ARE DETERMINED TO BE UNENFORCEABLE, EACH OTHER INVESTOR WILL ENTER INTO A PROXY THAT, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, PRESERVES THE INTENT AND PROVIDES THE WP X FUNDS SUBSTANTIALLY THE SAME BENEFITS OF THIS SECTION 7(K) (GRANT OF IRREVOCABLE PROXY).

(l) Agreements to Be Bound. Upon acceptance by the Company of a Joinder Agreement or as contemplated by Section 1(b) (Additional Investors), Schedule I or Schedule II

hereof, as applicable, shall be amended to include the applicable joining party and attached to this Agreement and be effective with no further action or consent required.

(m) After Acquired Securities. Each Investor agrees that, except as otherwise provided herein, all of the provisions of this Agreement shall apply to all of the Shares now Owned (including any Granted Equity Shares and Purchased Equity Shares) or which may be issued or Transferred hereafter to an Investor in consequence of any additional issuance, purchase, Transfer, exchange or reclassification of any of such Shares, corporate reorganization, or any other form of recapitalization, consolidation, acquisition, stock split or stock dividend, or which are acquired by an Investor in any other manner.

(n) WAIVER OF JURY TRIAL. EACH PARTY ACKNOWLEDGES AND AGREES THAT ANY CONTROVERSY WHICH MAY ARISE UNDER THIS AGREEMENT IS LIKELY TO INVOLVE COMPLICATED AND DIFFICULT ISSUES AND, THEREFORE, EACH SUCH PARTY IRREVOCABLY AND UNCONDITIONALLY WAIVES ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN RESPECT OF ANY ACTIONS, SUITS, DEMAND LETTERS, JUDICIAL, ADMINISTRATIVE OR REGULATORY PROCEEDINGS, OR HEARINGS, NOTICES OF VIOLATION OR INVESTIGATIONS ARISING OUT OF OR RELATING TO THIS AGREEMENT. EACH PARTY TO THIS AGREEMENT CERTIFIES AND ACKNOWLEDGES THAT (A) SUCH PARTY HAS CONSIDERED THE IMPLICATIONS OF THIS WAIVER AND (B) SUCH PARTY MAKES THIS WAIVER VOLUNTARILY.

(o) "Market Stand-off" Agreement. Each of the Other Investors agrees, if requested by the Company and an underwriter of equity securities of the Company, not to sell or otherwise transfer or dispose of any Shares held by such Other Investor during the one hundred eighty (180)-day period (or such other period as may be requested by the Company or the managing underwriter to accommodate regulatory restrictions on (i) the publication or other distribution of research reports and (ii) analyst recommendations and opinions, including, but not limited to, the restrictions contained in NASD Rule 2711(f)(4), or any successor provisions or amendments thereto) following the effective date of a registration statement of the Company filed under the Securities Act, provided that:

(i) such agreement only applies to the Initial Public Offering; and

(ii) all executive officers of the Company and all holders of one percent (1%) or more of the Company's capital stock enter into similar agreements.

If requested by the underwriters, the Other Investors shall execute a separate agreement to the foregoing effect. The Company may impose stop-transfer instructions with respect to the shares (or securities) subject to the foregoing restriction until the end of the period referenced above.

(p) Lost, etc. Certificates Evidencing Shares; Exchange. Upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of any certificate evidencing any Shares owned by an Investor and (in the case of loss, theft or destruction) of a bond or an indemnity satisfactory to it, and upon surrender and cancellation of

such certificate, if mutilated, the Company will make and deliver in lieu of such certificate a new certificate of like tenor and for the number of securities evidenced by such certificate which remain outstanding. Upon surrender of any certificate representing any Shares for exchange at the office of the Company, the Company at its expense will cause to be issued in exchange therefor new certificates in such denomination or denominations as may be requested for the same aggregate number of Shares represented by the certificate so surrendered and registered as such holder may request.

(q) Terms Generally. The words “hereby”, “herein”, “hereof”, “hereunder” and words of similar import refer to this Agreement as a whole and not merely to the specific section, paragraph or clause in which such word appears. All references herein to Articles and Sections shall be deemed references to Articles and Sections of this Agreement unless the context shall otherwise require. The words “include”, “includes” and “including” shall be deemed to be followed by the phrase “without limitation”. The definitions given for terms in this Agreement shall apply equally to both the singular and plural forms of the terms defined. References herein to any agreement or letter shall be deemed references to such agreement or letter as it may be amended, restated or otherwise revised from time to time. Whenever required by the context hereof, the singular number shall include the plural, and vice versa; the masculine gender shall include the feminine and neuter genders; and the neuter gender shall include the masculine and feminine genders.

(r) Draftsmanship. Each of the parties signing this Agreement on the date first set forth above has been represented by his, her or its own counsel and acknowledges that he, she or it has participated in the drafting of this Agreement, and any applicable rule of construction to the effect that ambiguities are to be resolved against the drafting party shall not be applied in connection with the construction or interpretation of this Agreement. Each of the parties joining this Agreement after the date first set forth above has been represented by his, her or its own counsel, has read and understands the terms of this Agreement and has been afforded the opportunity to ask questions concerning the Company and this Agreement, and any applicable rule of construction to the effect that ambiguities are to be resolved against the drafting party shall not be applied in connection with the construction or interpretation of this Agreement.

(s) State of Residence: Each Other Investor that is a natural person represents and warrants that it is a resident of the state set forth on such Other Investor’s signature page hereto. In the event an Other Investor changes its state of residence, such Other Investor shall promptly inform the Company of its new state of resident.

(t) Consent of Spouse. If any Other Investor is married or marries or remarries after the date of this Agreement, at the request of the Company such Other Investor shall cause his or her spouse to execute and deliver to the Company a consent of spouse in the form reasonably requested by the Company and consistent with spousal consent forms for investments of the type contemplated by this Agreement.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

COMPANY:
SILK ROAD MEDICAL, INC.

By: /s/ Erica Rogers
Erica J. Rogers
President and Chief Executive Officer

[Signature Page to the Amended and Restated Stockholders Agreement]

INVESTOR

NORWEST VENTURE PARTNERS XIII, LP

By: Genesis VC Partners XIII, LLC, its General Partner
By: NVP Associates, LLC, its Managing Member

By:	/s/ Robert Mittendorff, MD
Name:	Robert Mittendorff, MD
Title:	Partner

Address:

525 University Avenue, Suite 800
Palo Alto, CA 94301

With a copy, which shall not constitute notice, to:

Goodwin Procter LLP
Attn: William Davisson, Esq.
135 Commonwealth Drive
Menlo Park, CA 94025

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

INVESTOR

JANUS HENDERSON GLOBAL LIFE SCIENCES FUND

By:	/s/ Andy Acker
Name:	Andy Acker
Title:	Portfolio Manager

JANUS CAPITAL FUNDS PLC ON BEHALF OF ITS SERIES JANUS GLOBAL LIFE SCIENCES FUND

By:	/s/ Andy Acker
Name:	Andy Acker
Title:	Portfolio Manager

Address:

c/o Janus Capital Management LLC
151 Detroit Street
Denver, CO 80206
Attn: Legal Department/Ezra Kover

With a copy, which shall not constitute notice, to:

Goodwin Procter LLP
Attn: William Davisson, Esq.
135 Commonwealth Drive
Menlo Park, CA 94025

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

INVESTOR:

VERTICAL FUND I, L.P.

By: The Vertical Group, L.P., its General Partner
By: The Vertical Group GPHC, LLC, its General Partner

By: /s/ Tony Chou
Name: Tony Chou
Title: Authorized Signatory

VERTICAL FUND II, L.P.

By: The Vertical Group, L.P., its General Partner
By: The Vertical Group GPHC, LLC, its General Partner

By: /s/ Tony Chou
Name: Tony Chou
Title: Authorized Signatory

THE VERTICAL GROUP, INC.

By: /s/ Tony Chou
Name: Tony Chou
Title: Authorized Signatory

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

INVESTOR:

WP X FINANCE, L.P.

By: WPX GP, L.P., its Managing General Partner
By: Warburg Pincus Private Equity X, L.P., its General Partner
By: Warburg Pincus X, L.P, its General Partner
By: Warburg Pincus X GP L.P., its General Partner
By: WPP GP LLC, its General Partner
By: Warburg Pincus Partners, L.P., its Managing Member
By: Warburg Pincus Partners GP LLC, its General Partner
By: Warburg Pincus & Co., its Managing Member

By: /s/ Steven Glenn
Name: Steven Glenn
Title: Partner

WARBURG PINCUS X PARTNERS, L.P.

By: Warburg Pincus X, L.P., its General Partner
By: Warburg Pincus X GP L.P., its General Partner
By: WPP GP LLC, its General Partner
By: Warburg Pincus Partners, L.P., its Managing Member
By: Warburg Pincus Partners GP LLC, its General Partner
By: Warburg Pincus & Co., its Managing Member

By: /s/ Steven Glenn
Name: Steven Glenn
Title: Partner

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

INVESTORS:

CRG PARTNERS III L.P.
By CRG PARTNERS III GP L.P., its General Partner
By CRG PARTNERS III GP LLC, its General Partner

By: /s/ Charles W. Tate
Name: Charles Tate
Title: Sole Member

CRG PARTNERS III – PARALLEL FUND "A" L.P.
By CRG PARTNERS III – PARALLEL FUND "A" GP L.P., its General Partner
By CRG PARTNERS III GP LLC, its General Partner

By: /s/ Charles Tate
Name: Charles Tate
Title: Sole Member

CRG PARTNERS III – PARALLEL FUND "B" (CAYMAN) L.P.
By CRG PARTNERS III (CAYMAN) GP L.P., its General Partner
By CRG PARTNERS III GP LLC, its General Partner

By: /s/ Charles Tate
Name: Charles Tate
Title: Sole Member
WITNESS: /s/ Kevin Reilly
Name: Kevin Reilly

CRG PARTNERS III (CAYMAN) L.P.
By CRG PARTNERS III (CAYMAN) GP L.P., its General Partner
By CRG PARTNERS III GP LLC, its General Partner

By:
Name: Charles Tate
Title: Sole Member
WITNESS:
Name:

[Signature Page to the Amended and Restated Stockholders Agreement]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

INVESTOR

BUCHANAN GRANDCHILDREN'S IRREVOCABLE TRUST

By:	/s/ Lucas W Buchanan
Name:	Lucas W Buchanan
Title:	Trustee
Resident of the State of:	California

[Signature Page to the Amended and Restated Stockholders Agreement]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

INVESTOR

Name: Michi Garrison
Resident of the State of:

Name: Elizabeth H Weatherman
Resident of the State of:

/s/ Lucas W Buchanan
Name: Lucas W. Buchanan
Resident of the State of: California

Name: Michael Wallace
Resident of the State of:

[Signature Page to the Amended and Restated Stockholders Agreement]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

INVESTOR

Mark Caires

Print Name of Investor

/s/ Mark Caires

Signature

Print Name of signatory, if signing for an entity

Print Title of signatory, if signing for an entity

[Signature Page to the Amended and Restated Stockholders Agreement]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

INVESTOR

/s/ Tony Chou

Name:	Tony Chou
Resident of the State of:	California

[Signature Page to the Amended and Restated Stockholders Agreement]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

INVESTOR

Sean Curtis

Print Name of Investor

/s/ Sean Curtis

Signature

Print Name of signatory, if signing for an entity

Print Title of signatory, if signing for an entity

[Signature Page to the Amended and Restated Stockholders Agreement]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

INVESTOR

Andrew S. Davis

Print Name of Investor

/s/ Andrew S Davis

Signature

Print Name of signatory, if signing for an entity

Print Title of signatory, if signing for an entity

[Signature Page to the Amended and Restated Stockholders Agreement]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

INVESTOR

Kevin J. Surace and Erica J. Rogers, as Trustees of
The Surace/Rogers Family Trust under agreement dated January 30, 2017

/s/ Erica J. Rogers

Name:	Erica J. Rogers
Resident of the State of:	California

[Signature Page to the Amended and Restated Stockholders Agreement]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

INVESTOR

David Rust

Print Name of Investor

/s/ David Rust

Signature

Print Name of signatory, if signing for an entity

Print Title of signatory, if signing for an entity

[Signature Page to the Amended and Restated Stockholders Agreement]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

INVESTOR

Frank Viano

Print Name of Investor

/s/ Frank Viano

Signature

Print Name of signatory, if signing for an entity

Print Title of signatory, if signing for an entity

[Signature Page to the Amended and Restated Stockholders Agreement]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

INVESTOR

/s/ Elizabeth H Weatherman

Name:	Elizabeth H Weatherman
Resident of the State of:	Florida

[Signature Page to the Amended and Restated Stockholders Agreement]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

INVESTOR

Jeremy Wright

Print Name of Investor

/s/ Jeremy Wright

Signature

Print Name of signatory, if signing for an entity

Print Title of signatory, if signing for an entity

[Signature Page to the Amended and Restated Stockholders Agreement]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

INVESTOR

WS INVESTMENT COMPANY, LLC (2017A)

/s/ James Terranova

Signature

James Terranova

Name

Director of Fund Operations

Title (if signing on behalf of an entity)

[Signature Page to the Amended and Restated Stockholders Agreement]

SCHEDULE I

Institutional Investors

WARBURG PINCUS PRIVATE EQUITY X, L.P.
450 Lexington Avenue
New York, NY 10017
Facsimile: (212) 716-8645
Attention: In Seon Hwang

with a copy to (which shall not constitute notice):

Simpson Thacher & Bartlett LLP
2475 Hanover Street
Palo Alto, CA 94304
Facsimile: (650) 251-5002
Attention: Robert T. Langdon, Esq.

WARBURG PINCUS X PARTNERS, L.P.
450 Lexington Avenue
New York, NY 10017
Facsimile: (212) 716-8645
Attention: In Seon Hwang

with a copy to (which shall not constitute notice):

Simpson Thacher & Bartlett LLP
2475 Hanover Street
Palo Alto, CA 94304
Facsimile: (650) 251-5002
Attention: Robert T. Langdon, Esq.

VERTICAL FUND I, L.P.
The Vertical Group
106 Allen Road, Suite 207
Basking Ridge, NJ 07920
Facsimile: (908) 273-9434

Attention: John E. Runnells

VERTICAL FUND II, L.P.
The Vertical Group
106 Allen Road, Suite 207
Basking Ridge, NJ 07920
Facsimile: (908) 273-9434

Attention: John E. Runnells

SCHEDULE II

Other Investors

NORWEST VENTURE PARTNERS XIII, LP

525 University Avenue, Suite 800
Palo Alto, CA 94301

With a copy, which shall not constitute notice, to:

Goodwin Procter LLP
Attn: William Davisson, Esq.
135 Commonwealth Drive
Menlo Park, CA 94025

JANUS HENDERSON GLOBAL LIFE SCIENCES FUND

c/o Janus Capital Management LLC
151 Detroit Street, 4th Floor
Denver CO 80206
Attn: Legal

With a copy, which shall not constitute notice, to:

Goodwin Procter LLP
Attn: William Davisson, Esq.
135 Commonwealth Drive
Menlo Park, CA 94025

JANUS CAPITAL FUNDS PLC ON BEHALF OF ITS SERIES JANUS GLOBAL LIFE SCIENCES FUND

c/o Janus Capital Management LLC
151 Detroit Street, 4th Floor
Denver CO 80206
Attn: Legal

With a copy, which shall not constitute notice, to:

Goodwin Procter LLP
Attn: William Davisson, Esq.
135 Commonwealth Drive
Menlo Park, CA 94025

CRG PARTNERS III L.P.

1000 Main Street, Suite 2500
Houston, TX 77002
Attn: General Counsel
Tel.: 713.209.7350
Fax: 713.209.7351
Email: adorenbaum@crglp.com

Attention: Charles Tate

CRG PARTNERS III – PARALLEL FUND "A" L.P.
1000 Main Street, Suite 2500
Houston, TX 77002
Attn: General Counsel
Tel.: 713.209.7350
Fax: 713.209.7351
Email: adorenbaum@crglp.com

Attention: Charles Tate

CRG PARTNERS III – PARALLEL FUND "B" (CAYMAN) L.P.
1000 Main Street, Suite 2500
Houston, TX 77002
Attn: General Counsel
Tel.: 713.209.7350
Fax: 713.209.7351
Email: adorenbaum@crglp.com

Attention: Charles Tate

CRG PARTNERS III (CAYMAN) L.P.

1000 Main Street, Suite 2500
Houston, TX 77002
Attn: General Counsel
Tel.: 713.209.7350
Fax: 713.209.7351
Email: adorenbaum@crglp.com

Attention: Charles Tate

BUCHANAN GRANDCHILDREN'S IRREVOCABLE TRUST
4501 Wallace Road
Santa Rosa, CA 95404
Tel: (267) 324-9076
Email: lucasbuchanan@hotmail.com

Attn: Lucas W. Buchanan

LUCAS W. BUCHANAN
506 Edge Cliff Way
Redwood City, CA 94062
Tel: (267) 324-9076
Email: lucasbuchanan@hotmail.com

MARK CAIRES
464 Vista Robles Drive
Ben Lomond, CA 95005
Tel: (831) 336-3444
Email: mark@aaranch.com

SEAN CURTIS
11735 Mill Rock Rd.
San Antonio, TX 78230
Tel: (210) 379-1247
Email: seandcurtis@yahoo.com

ANDREW S. DAVIS
3109 Cranesbill Drive
Raleigh, NC 27613
Tel: (919) 349-7180
Email: Davisfsu11@yahoo.com

KEVIN J. SURACE AND ERICA J. ROGERS, AS TRUSTEES OF THE SURACE/ROGERS FAMILY TRUST UNDER AGREEMENT DATED JANUARY 30, 2017
818 Gary Ave.
Sunnyvale, CA 94086
Tel: (650) 279-3436
Email: ej1.rogers@gmail.com

Attn: Erica J. Rogers

DAVID RUST
30B King Street
Morristown, NJ 07960
Tel: (973) 670-0452
Email: davidrust2@gmail.com

FRANK VIANO
214 Commonwealth Avenue
Unit 1
Boston, MA 02116
Tel : (508) 361-1912
Email: frankeviano@gmail.com

ELIZABETH WEATHERMAN
4001 N. Ocean Blvd, #503
Gulf Stream, FL 33483
Tel: (917) 843-4655
Email: elizabeth.weatherman@warburgpincus.com

JEREMY WRIGHT
14412 Dearborn St.
Overland Park, KS 66223
Tel: (913) 638-4950
Email: jwrightku@sbcglobal.net

WS INVESTMENTS (2017A)
650 Page Mill Road
Palo Alto, CA 94304
Tel: (650) 493-9300
Email: jterranova@wsgr.com

Attn: James Terranova

SCHEDULE III

Subscription Right Investors

None.

Exhibit A

FORM OF

JOINDER AGREEMENT

THIS JOINDER AGREEMENT (the "Agreement") is made as of the ____ day of _____ by _____, having an address at _____ (the "Joining Party").

W I T N E S S E T H

WHEREAS, Silk Road Medical, Inc., a Delaware corporation (the "Company"), is a party to that certain Amended and Restated Stockholders' Agreement, dated as of July 7, 2017 (as the same may be amended from time to time, the "Stockholders' Agreement") (Capitalized terms used but not defined herein shall have the meanings ascribed to them in the Stockholders' Agreement);

WHEREAS, the Stockholders' Agreement provides that as a condition to becoming an Investor, a Person must execute and deliver to the Company a Joinder Agreement pursuant to which such Person agrees to be bound by the terms and conditions of the Stockholders' Agreement;

WHEREAS, the Joining Party desires to become an Investor of the Company by executing a copy of this Agreement; and

WHEREAS, the Joining Party has reviewed the terms of the Stockholders' Agreement and determined that it is desirable and in the Joining Party's best interests to execute this Joinder Agreement.

NOW, THEREFORE, the Joining Party hereby agrees as follows:

1. Joinder of Stockholders Agreement. By executing this Joinder Agreement, the Joining Party (a) accepts and agrees to be bound by all of the terms and provisions of the Stockholders Agreement as if he, she or it were an original signatory thereto, (b) shall be deemed to be an [Other Investor] [Institutional Investor], and shall be entitled to all of the rights and subject to all of the obligations of an [Other Investor] [Institutional Investor] thereunder [(provided, the Joining Party shall not have the tag-along rights or subscription rights contemplated therein)], and (c) shall be added to either Schedule I or Schedule II, as applicable, of the Stockholders Agreement.

2. Representations and Warranties.

(i) This Agreement constitutes a valid and binding obligation enforceable against the Joining Party in accordance with its terms.

(ii) The Joining Party has received a copy of the Stockholders Agreement. The Joining Party has read and understands the terms of the Stockholders Agreement and has been afforded the opportunity to ask questions concerning the Company and the Stockholders Agreement.

4. Full Force and Effect. Except as expressly modified by this Agreement, all of the terms, covenants, agreements, conditions and other provisions of the Stockholders' Agreement shall remain in full force and effect in accordance with its terms.

5. Notices. All notices provided to the Joining Party shall be sent or delivered to the Joining Party at the address set forth on the signature page hereto unless and until the Company has received written notice from the Joining Party of a changed address.

6. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware applicable to contracts made and to be performed entirely within such state.

[Signature page follows]

IN WITNESS WHEREOF, the Joining Party has executed and delivered this Agreement as of the date first above written.

JOINING PARTY

_____

Name
Address:

_____

_____

Facsimile:
Resident of the State of:

Acknowledged and Accepted:

SILK ROAD MEDICAL, INC.

By: _____
Name: _____
Title: _____

[Signature Page to Joinder Agreement]

SILK ROAD MEDICAL, INC.

2007 STOCK PLAN

1. Purposes of the Plan. The purposes of this Plan are to attract and retain the best available personnel for positions of substantial responsibility, to provide additional incentive to Employees, Directors and Consultants and to promote the success of the Company's business. Options granted under the Plan may be Incentive Stock Options or Nonstatutory Stock Options, as determined by the Administrator at the time of grant. Stock Purchase Rights may also be granted under the Plan.

2. Definitions. As used herein, the following definitions shall apply:

(a) "Administrator" means the Board or any of its Committees as shall be administering the Plan in accordance with Section 4 hereof.

(b) "Applicable Laws" means the requirements relating to the administration of stock option plans under U.S. state corporate laws, U.S. federal and state securities laws, the Code, any stock exchange or quotation system on which the Common Stock is listed or quoted and the applicable laws of any other country or jurisdiction where Options or Stock Purchase Rights are granted under the Plan.

(c) "Board" means the Board of Directors of the Company.

(d) "Change in Control" means the occurrence of any of the following events:

(i) Any "person" (as such term is used in Sections 13(d) and 14(d) of the Exchange Act) becomes the "beneficial owner" (as defined in Rule 13d-3 of the Exchange Act), directly or indirectly, of securities of the Company representing fifty percent (50%) or more of the total voting power represented by the Company's then outstanding voting securities, except that any change in the beneficial ownership of the securities of the Company as a result of a private financing of the Company that is approved by the Board, shall not be deemed to be a Change in Control; or

(ii) The consummation of the sale or disposition by the Company of all or substantially all of the Company's assets; or

(iii) The consummation of a merger or consolidation of the Company with any other corporation, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or its parent) at least fifty percent (50%) of the total voting power represented by the voting securities of the Company or such surviving entity or its parent outstanding immediately after such merger or consolidation.

(e) "Code" means the Internal Revenue Code of 1986, as amended. Any reference to a section of the Code herein will be a reference to any successor or amended section of the Code.

(f) "Committee" means a committee of Directors or of other individuals satisfying Applicable Laws appointed by the Board in accordance with Section 4 hereof.

(g) "Common Stock" means the Common Stock of the Company.

(h) "Company" means Silk Road Medical, Inc., a Delaware corporation.

(i) "Consultant" means any person who is engaged by the Company or any Parent or Subsidiary to render consulting or advisory services to such entity.

(j) "Director" means a member of the Board.

(k) "Disability" means total and permanent disability as defined in Section 22(e)(3) of the Code.

(l) "Employee" means any person, including officers and Directors, employed by the Company or any Parent or Subsidiary of the Company. Neither service as a Director nor payment of a director's fee by the Company shall be sufficient to constitute "employment" by the Company.

(m) "Exchange Act" means the Securities Exchange Act of 1934, as amended.

(n) "Exchange Program" means a program under which (a) outstanding Options are surrendered or cancelled in exchange for Options of the same type (which may have lower exercise prices and different terms), Options of a different type, and/or cash, and/or (b) the exercise price of an outstanding Option is reduced. The terms and conditions of any Exchange Program will be determined by the Administrator in its sole discretion.

(o) "Fair Market Value" means, as of any date, the value of Common Stock determined as follows:

(i) If the Common Stock is listed on any established stock exchange or a national market system, including without limitation the Nasdaq National Market or The Nasdaq SmallCap Market of The Nasdaq Stock Market, its Fair Market Value shall be the closing sales price for such stock (or the closing bid, if no sales were reported) as quoted on such exchange or system on the day of determination, as reported in *The Wall Street Journal* or such other source as the Administrator deems reliable;

(ii) If the Common Stock is regularly quoted by a recognized securities dealer but selling prices are not reported, its Fair Market Value shall be the mean between the high bid and low asked prices for the Common Stock on the day of determination; or

(iii) In the absence of an established market for the Common Stock, the Fair Market Value thereof shall be determined in good faith by the Administrator.

(p) "Incentive Stock Option" means an Option intended to qualify as an incentive stock option within the meaning of Section 422 of the Code.

(q) "Nonstatutory Stock Option" means an Option not intended to qualify as an Incentive Stock Option.

(r) "Option" means a stock option granted pursuant to the Plan.

(s) "Option Agreement" means a written or electronic agreement between the Company and an Optionee evidencing the terms and conditions of an individual Option grant. The Option Agreement is subject to the terms and conditions of the Plan.

(t) "Optioned Stock" means the Common Stock subject to an Option or a Stock Purchase Right.

(u) "Optionee" means the holder of an outstanding Option or Stock Purchase Right granted under the Plan.

(v) "Parent" means a "parent corporation," whether now or hereafter existing, as defined in Section 424(e) of the Code.

(w) "Plan" means this 2007 Stock Plan.

(x) "Restricted Stock" means Shares issued pursuant to a Stock Purchase Right or Shares of restricted stock issued pursuant to an Option.

(y) "Restricted Stock Purchase Agreement" means a written or electronic agreement between the Company and the Optionee evidencing the terms and restrictions applying to Shares purchased under a Stock Purchase Right. The Restricted Stock Purchase Agreement is subject to the terms and conditions of the Plan and the notice of grant.

(z) "Securities Act" means the Securities Act of 1933, as amended.

(aa) "Service Provider" means an Employee, Director or Consultant.

(bb) "Share" means a share of the Common Stock, as adjusted in accordance with Section 13 below.

(cc) "Stock Purchase Right" means a right to purchase Common Stock pursuant to Section 11 below.

(dd) "Subsidiary" means a "subsidiary corporation," whether now or hereafter existing, as defined in Section 424(f) of the Code.

3. Stock Subject to the Plan. Subject to the provisions of Section 13 of the Plan, the maximum aggregate number of Shares that may be subject to Options or Stock Purchase Rights and sold under the Plan is **14,818,237** Shares. The Shares may be authorized but unissued, or reacquired Common Stock.

If an Option or Stock Purchase Right expires or becomes unexercisable without having been exercised in full, or is surrendered pursuant to an Exchange Program, the unpurchased Shares that were subject thereto shall become available for future grant or sale under the Plan (unless the Plan has terminated). However, Shares that have actually been issued under the Plan, upon exercise of either an Option or Stock Purchase Right, shall not be returned to the Plan and shall not become available for future distribution under the Plan, except that if unvested Shares of Restricted Stock are repurchased by the Company at their original purchase price, such Shares shall become available for future grant under the Plan.

4. Administration of the Plan.

(a) Administrator. The Plan shall be administered by the Board or a Committee appointed by the Board, which Committee shall be constituted to comply with Applicable Laws.

(b) Powers of the Administrator. Subject to the provisions of the Plan and, in the case of a Committee, the specific duties delegated by the Board to such Committee, and subject to the approval of any relevant authorities, the Administrator shall have the authority in its discretion:

(i) to determine the Fair Market Value;

(ii) to select the Service Providers to whom Options and Stock Purchase Rights may from time to time be granted hereunder;

(iii) to determine the number of Shares to be covered by each such award granted hereunder;

(iv) to approve forms of agreement for use under the Plan;

(v) to determine the terms and conditions of any Option or Stock Purchase Right granted hereunder. Such terms and conditions include, but are not limited to, the exercise price, the time or times when Options or Stock Purchase Rights may be exercised (which may be based on performance criteria), any vesting acceleration or waiver of forfeiture restrictions, and any restriction or limitation regarding any Option or Stock Purchase Right or the Common Stock relating thereto, based in each case on such factors as the Administrator, in its sole discretion, shall determine;

(vi) to institute an Exchange Program;

(vii) to prescribe, amend and rescind rules and regulations relating to the Plan, including rules and regulations relating to sub-plans established for the purpose of satisfying applicable foreign laws;

(viii) to allow Optionees to satisfy withholding tax obligations by electing to have the Company withhold from the Shares to be issued upon exercise of an Option or Stock Purchase Right that number of Shares having a Fair Market Value equal to the minimum amount required to be withheld. The Fair Market Value of the Shares to be withheld shall be determined on the date that the amount of tax to be withheld is to be determined. All elections by Optionees to

have Shares withheld for this purpose shall be made in such form and under such conditions as the Administrator may deem necessary or advisable; and

(ix) to construe and interpret the terms of the Plan and Options granted pursuant to the Plan.

(c) Effect of Administrator's Decision. All decisions, determinations and interpretations of the Administrator shall be final and binding on all Optionees.

5. Eligibility. Nonstatutory Stock Options and Stock Purchase Rights may be granted to Service Providers. Incentive Stock Options may be granted only to Employees.

6. Limitations.

(a) Incentive Stock Option Limit. Each Option shall be designated in the Option Agreement as either an Incentive Stock Option or a Nonstatutory Stock Option. However, notwithstanding such designation, to the extent that the aggregate Fair Market Value of the Shares with respect to which Incentive Stock Options are exercisable for the first time by the Optionee during any calendar year (under all plans of the Company and any Parent or Subsidiary) exceeds $100,000, such Options shall be treated as Nonstatutory Stock Options. For purposes of this Section 6(a), Incentive Stock Options shall be taken into account in the order in which they were granted. The Fair Market Value of the Shares shall be determined as of the time the Option with respect to such Shares is granted.

(b) At-Will Employment. Neither the Plan nor any Option or Stock Purchase Right shall confer upon any Optionee any right with respect to continuing the Optionee's relationship as a Service Provider with the Company, nor shall it interfere in any way with his or her right or the Company's right to terminate such relationship at any time, with or without cause, and with or without notice.

7. Term of Plan. Subject to stockholder approval in accordance with Section 19, the Plan shall become effective upon its adoption by the Board. Unless sooner terminated under Section 15, it shall continue in effect for a term of ten (10) years from the later of (i) the effective date of the Plan, or (ii) the earlier of the most recent Board or stockholder approval of an increase in the number of Shares reserved for issuance under the Plan.

8. Term of Option. The term of each Option shall be stated in the Option Agreement; provided, however, that the term shall be no more than ten (10) years from the date of grant thereof. In the case of an Incentive Stock Option granted to an Optionee who, at the time the Option is granted, owns stock representing more than ten percent (10%) of the voting power of all classes of stock of the Company or any Parent or Subsidiary, the term of the Option shall be five (5) years from the date of grant or such shorter term as may be provided in the Option Agreement.

9. Option Exercise Price and Consideration.

(a) Exercise Price. The per share exercise price for the Shares to be issued upon exercise of an Option shall be such price as is determined by the Administrator, but shall be subject to the following:

(i) In the case of an Incentive Stock Option

(A) granted to an Employee who, at the time of grant of such Option, owns stock representing more than ten percent (10%) of the voting power of all classes of stock of the Company or any Parent or Subsidiary, the exercise price shall be no less than 110% of the Fair Market Value per Share on the date of grant.

(B) granted to any other Employee, the per Share exercise price shall be no less than 100% of the Fair Market Value per Share on the date of grant.

(ii) In the case of a Nonstatutory Stock Option

(A) granted to a Service Provider who, at the time of grant of such Option, owns stock representing more than ten percent (10%) of the voting power of all classes of stock of the Company or any Parent or Subsidiary, the exercise price shall be no less than 110% of the Fair Market Value per Share on the date of grant.

(B) granted to any other Service Provider, the per Share exercise price shall be no less than 85% of the Fair Market Value per Share on the date of grant.

(iii) Notwithstanding the foregoing, Options may be granted with a per Share exercise price other than as required above in accordance with and pursuant to a transaction described in Section 424 of the Code.

(b) Forms of Consideration. The consideration to be paid for the Shares to be issued upon exercise of an Option, including the method of payment, shall be determined by the Administrator (and, in the case of an Incentive Stock Option, shall be determined at the time of grant). Such consideration may consist of, without limitation, (1) cash, (2) check, (3) promissory note, (4) other Shares, provided Shares acquired directly from the Company (x) have been owned by the Optionee, and not subject to a substantial risk of forfeiture, for more than six months on the date of surrender, and (y) have a Fair Market Value on the date of surrender equal to the aggregate exercise price of the Shares as to which such Option shall be exercised, (5) consideration received by the Company under a cashless exercise program implemented by the Company in connection with the Plan, or (6) any combination of the foregoing methods of payment. In making its determination as to the type of consideration to accept, the Administrator shall consider if acceptance of such consideration may be reasonably expected to benefit the Company.

10. Exercise of Option.

(a) Procedure for Exercise; Rights as a Stockholder. Any Option granted hereunder shall be exercisable according to the terms hereof at such times and under such conditions

as determined by the Administrator and set forth in the Option Agreement. An Option may not be exercised for a fraction of a Share. Except in the case of Options granted to officers, Directors and Consultants, Options shall become exercisable at a rate of no less than 20% per year over five (5) years from the date the Options are granted.

An Option shall be deemed exercised when the Company receives (i) written or electronic notice of exercise (in accordance with the Option Agreement) from the person entitled to exercise the Option, and (ii) full payment for the Shares with respect to which the Option is exercised. Full payment may consist of any consideration and method of payment authorized by the Administrator and permitted by the Option Agreement and the Plan. Shares issued upon exercise of an Option shall be issued in the name of the Optionee or, if requested by the Optionee, in the name of the Optionee and his or her spouse. Until the Shares are issued (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), no right to vote or receive dividends or any other rights as a stockholder shall exist with respect to the Shares, notwithstanding the exercise of the Option. The Company shall issue (or cause to be issued) such Shares promptly after the Option is exercised. No adjustment will be made for a dividend or other right for which the record date is prior to the date the Shares are issued, except as provided in Section 13 of the Plan.

Exercise of an Option in any manner shall result in a decrease in the number of Shares thereafter available, both for purposes of the Plan and for sale under the Option, by the number of Shares as to which the Option is exercised.

(b) Termination of Relationship as a Service Provider. If an Optionee ceases to be a Service Provider, such Optionee may exercise his or her Option within thirty (30) days of termination, or such longer period of time as specified in the Option Agreement, to the extent that the Option is vested on the date of termination (but in no event later than the expiration of the term of the Option as set forth in the Option Agreement). Unless the Administrator provides otherwise, if on the date of termination the Optionee is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option shall revert to the Plan. If, after termination, the Optionee does not exercise his or her Option within the time specified by the Administrator, the Option shall terminate, and the Shares covered by such Option shall revert to the Plan.

(c) Disability of Optionee. If an Optionee ceases to be a Service Provider as a result of the Optionee's Disability, the Optionee may exercise his or her Option within six (6) months of termination, or such longer period of time as specified in the Option Agreement, to the extent the Option is vested on the date of termination (but in no event later than the expiration of the term of such Option as set forth in the Option Agreement). Unless the Administrator provides otherwise, if on the date of termination the Optionee is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option shall revert to the Plan. If, after termination, the Optionee does not exercise his or her Option within the time specified herein, the Option shall terminate, and the Shares covered by such Option shall revert to the Plan.

(d) Death of Optionee. If an Optionee dies while a Service Provider, the Option may be exercised within six (6) months following Optionee's death, or such longer period of time as specified in the Option Agreement, to the extent that the Option is vested on the date of death

(but in no event later than the expiration of the term of such Option as set forth in the Option Agreement) by the Optionee's designated beneficiary, provided such beneficiary has been designated prior to Optionee's death in a form acceptable to the Administrator. If no such beneficiary has been designated by the Optionee, then such Option may be exercised by the personal representative of the Optionee's estate or by the person(s) to whom the Option is transferred pursuant to the Optionee's will or in accordance with the laws of descent and distribution. If, at the time of death, the Optionee is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option shall immediately revert to the Plan. If the Option is not so exercised within the time specified herein, the Option shall terminate, and the Shares covered by such Option shall revert to the Plan.

(e) Leaves of Absence.

(i) Unless the Administrator provides otherwise, vesting of Options granted hereunder to officers and Directors shall be suspended during any unpaid leave of absence.

(ii) A Service Provider shall not cease to be an Employee in the case of (A) any leave of absence approved by the Company or (B) transfers between locations of the Company or between the Company, its Parent, any Subsidiary, or any successor.

(iii) For purposes of Incentive Stock Options, no such leave may exceed ninety (90) days, unless reemployment upon expiration of such leave is guaranteed by statute or contract. If reemployment upon expiration of a leave of absence approved by the Company is not so guaranteed, then three (3) months following the 91st day of such leave, any Incentive Stock Option held by the Optionee shall cease to be treated as an Incentive Stock Option and shall be treated for tax purposes as a Nonstatutory Stock Option.

11. Stock Purchase Rights.

(a) Rights to Purchase. Stock Purchase Rights may be issued either alone, in addition to, or in tandem with other awards granted under the Plan and/or cash awards made outside of the Plan. After the Administrator determines that it will offer Stock Purchase Rights under the Plan, it shall advise the offeree in writing or electronically of the terms, conditions and restrictions related to the offer, including the number of Shares that such person shall be entitled to purchase, the price to be paid, and the time within which such person must accept such offer. The terms of the offer shall comply in all respects with Section 260.140.42 of Title 10 of the California Code of Regulations. The offer shall be accepted by execution of a Restricted Stock Purchase Agreement in the form determined by the Administrator.

(b) Repurchase Option. Unless the Administrator determines otherwise, the Restricted Stock Purchase Agreement shall grant the Company a repurchase option exercisable within 90 days of the voluntary or involuntary termination of the purchaser's service with the Company for any reason (including death or disability). Unless the Administrator provides otherwise, the purchase price for Shares repurchased pursuant to the Restricted Stock Purchase Agreement shall be the original price paid by the purchaser and may be paid by cancellation of any indebtedness of the purchaser to the Company. The repurchase option shall lapse at such rate as the

Administrator may determine. Except with respect to Shares purchased by officers, Directors and Consultants, the repurchase option shall in no case lapse at a rate of less than 20% per year over five (5) years from the date of purchase.

(c) Other Provisions. The Restricted Stock Purchase Agreement shall contain such other terms, provisions and conditions not inconsistent with the Plan as may be determined by the Administrator in its sole discretion.

(d) Rights as a Stockholder. Once the Stock Purchase Right is exercised, the purchaser shall have rights equivalent to those of a stockholder and shall be a stockholder when his or her purchase is entered upon the records of the duly authorized transfer agent of the Company. No adjustment shall be made for a dividend or other right for which the record date is prior to the date the Stock Purchase Right is exercised, except as provided in Section 13 of the Plan.

12. Limited Transferability of Options and Stock Purchase Rights. Unless determined otherwise by the Administrator, Options and Stock Purchase Rights may not be sold, pledged, assigned, hypothecated, transferred, or disposed of in any manner other than by will or the laws of descent and distribution, and may be exercised during the lifetime of the Optionee, only by the Optionee. If the Administrator in its sole discretion makes an Option or Stock Purchase Right transferable, such Option or Stock Purchase Right may only be transferred (i) by will, (ii) by the laws of descent and distribution, or (iii) to family members (within the meaning of Rule 701 of the Securities Act) through gifts or domestic relations orders, as permitted by Rule 701 of the Securities Act.

13. Adjustments; Dissolution or Liquidation; Merger or Change in Control.

(a) Adjustments. In the event that any dividend or other distribution (whether in the form of cash, Shares, other securities, or other property), recapitalization, stock split, reverse stock split, reorganization, merger, consolidation, split-up, spin-off, combination, repurchase, or exchange of Shares or other securities of the Company, or other change in the corporate structure of the Company affecting the Shares occurs, the Administrator, in order to prevent diminution or enlargement of the benefits or potential benefits intended to be made available under the Plan, may (in its sole discretion) adjust the number and class of Shares that may be delivered under the Plan and/or the number, class, and price of Shares covered by each outstanding Option or Stock Purchase Right; provided, however, that the Administrator shall make such adjustments to the extent required by Section 25102(o) of the California Corporations Code.

(b) Dissolution or Liquidation. In the event of the proposed dissolution or liquidation of the Company, the Administrator shall notify each Optionee as soon as practicable prior to the effective date of such proposed transaction. To the extent it has not been previously exercised, an Option or Stock Purchase Right will terminate immediately prior to the consummation of such proposed action.

(c) Merger or Change in Control. In the event of a merger of the Company with or into another corporation, or a Change in Control, each outstanding Option and Stock Purchase Right shall be assumed or an equivalent option substituted by the successor corporation or a Parent

or Subsidiary of the successor corporation. In the event that the successor corporation in a merger or Change in Control refuses to assume or substitute for the Option or Stock Purchase Right, then the Optionee shall fully vest in and have the right to exercise the Option or Stock Purchase Right as to all of the Optioned Stock, including Shares as to which it would not otherwise be vested or exercisable. If an Option or Stock Purchase Right becomes fully vested and exercisable in lieu of assumption or substitution in the event of a merger or Change in Control, the Administrator shall notify the Optionee in writing or electronically that the Option or Stock Purchase Right shall be fully exercisable for a period of time as determined by the Administrator, and the Option or Stock Purchase Right shall terminate upon expiration of such period. For the purposes of this paragraph, the Option or Stock Purchase Right shall be considered assumed if, following the merger or Change in Control, the option or right confers the right to purchase or receive, for each Share subject to the Option or Stock Purchase Right immediately prior to the merger or Change in Control, the consideration (whether stock, cash, or other securities or property) received in the merger or Change in Control by holders of Common Stock for each Share held on the effective date of the transaction (and if holders were offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding Shares); provided, however, that if such consideration received in the merger or Change in Control is not solely common stock of the successor corporation or its Parent, the Administrator may, with the consent of the successor corporation, provide for the consideration to be received upon the exercise of the Option or Stock Purchase Right, for each Share subject to the Option or Stock Purchase Right, to be solely common stock of the successor corporation or its Parent equal in fair market value to the per share consideration received by holders of common stock in the merger or Change in Control.

14. Time of Granting Options and Stock Purchase Rights. The date of grant of an Option or Stock Purchase Right shall, for all purposes, be the date on which the Administrator makes the determination granting such Option or Stock Purchase Right, or such later date as is determined by the Administrator. Notice of the determination shall be given to each Service Provider to whom an Option or Stock Purchase Right is so granted within a reasonable time after the date of such grant.

15. Amendment and Termination of the Plan.

(a) Amendment and Termination. The Board may at any time amend, alter, suspend or terminate the Plan.

(b) Stockholder Approval. The Board shall obtain stockholder approval of any Plan amendment to the extent necessary and desirable to comply with Applicable Laws.

(c) Effect of Amendment or Termination. No amendment, alteration, suspension or termination of the Plan shall impair the rights of any Optionee, unless mutually agreed otherwise between the Optionee and the Administrator, which agreement must be in writing and signed by the Optionee and the Company. Termination of the Plan shall not affect the Administrator's ability to exercise the powers granted to it hereunder with respect to Options granted under the Plan prior to the date of such termination.

16. Conditions Upon Issuance of Shares.

(a) Legal Compliance. Shares shall not be issued pursuant to the exercise of an Option or Stock Purchase Right unless the exercise of such Option or Stock Purchase Right and the issuance and delivery of such Shares shall comply with Applicable Laws and shall be further subject to the approval of counsel for the Company with respect to such compliance.

(b) Investment Representations. As a condition to the exercise of an Option or Stock Purchase Right, the Administrator may require the person exercising such Option or Stock Purchase Right to represent and warrant at the time of any such exercise that the Shares are being purchased only for investment and without any present intention to sell or distribute such Shares if, in the opinion of counsel for the Company, such a representation is required.

17. Inability to Obtain Authority. The inability of the Company to obtain authority from any regulatory body having jurisdiction, which authority is deemed by the Company's counsel to be necessary to the lawful issuance and sale of any Shares hereunder, shall relieve the Company of any liability in respect of the failure to issue or sell such Shares as to which such requisite authority shall not have been obtained.

18. Reservation of Shares. The Company, during the term of this Plan, shall at all times reserve and keep available such number of Shares as shall be sufficient to satisfy the requirements of the Plan.

19. Stockholder Approval. The Plan shall be subject to approval by the stockholders of the Company within twelve (12) months after the date the Plan is adopted. Such stockholder approval shall be obtained in the degree and manner required under Applicable Laws.

20. Information to Optionees. The Company shall provide to each Optionee and to each individual who acquires Shares pursuant to the Plan, not less frequently than annually during the period such Optionee has one or more Options or Stock Purchase Rights outstanding, and, in the case of an individual who acquires Shares pursuant to the Plan, during the period such individual owns such Shares, copies of annual financial statements. The Company shall not be required to provide such statements to key employees whose duties in connection with the Company assure their access to equivalent information.

SILK ROAD MEDICAL, INC.

2007 STOCK PLAN

STOCK OPTION AGREEMENT

Unless otherwise defined herein, the terms defined in the 2007 Stock Plan shall have the same defined meanings in this Stock Option Agreement.

I. NOTICE OF STOCK OPTION GRANT

Name: «Name»

The undersigned Optionee has been granted an Option to purchase Common Stock of the Company, subject to the terms and conditions of the Plan and this Option Agreement, as follows:

Date of Grant	«Date_of_Grant»
Vesting Commencement Date	«Vesting_Commencement_Date»
Exercise Price per Share	«Price_Per_Share»
Total Number of Shares Granted	«Shares»
Total Exercise Price	«Exercise_Price»
Type of Option:	«Type»
Term/Expiration Date:	«Expiration_Date»

Vesting Schedule:

This Option shall be exercisable, in whole or in part, according to the following vesting schedule:

«Vesting_Schedule»

Termination Period:

This Option shall be exercisable for three (3) months after Optionee ceases to be a Service Provider. Upon Optionee's death or Disability, this Option may be exercised for one (1) year after Optionee ceases to be a Service Provider. In no event may Optionee exercise this Option after the Term/Expiration Date as provided above.

II. AGREEMENT

1. Grant of Option. The Plan Administrator of the Company hereby grants to the Optionee named in the Notice of Grant (the "**Optionee**"), an option (the "**Option**") to purchase the number of Shares set forth in the Notice of Grant, at the exercise price per Share set forth in the Notice of Grant (the "**Exercise Price**"), and subject to the terms and conditions of the Plan, which is incorporated herein by reference. Subject to Section 15(c) of the Plan, in the event of a conflict between the terms and conditions of the Plan and this Option Agreement, the terms and conditions of the Plan shall prevail.

If designated in the Notice of Grant as an Incentive Stock Option ("**ISO**"), this Option is intended to qualify as an Incentive Stock Option as defined in Section 422 of the Code. Nevertheless, to the extent that it exceeds the $100,000 rule of Code Section 422(d), this Option shall be treated as a Nonstatutory Stock Option ("**NSO**").

2. Exercise of Option.

(a) Right to Exercise. This Option shall be exercisable during its term in accordance with the Vesting Schedule set out in the Notice of Grant and with the applicable provisions of the Plan and this Option Agreement.

(b) Method of Exercise. This Option shall be exercisable by delivery of an exercise notice in the form attached as Exhibit A (the "**Exercise Notice**") which shall state the election to exercise the Option, the number of Shares with respect to which the Option is being exercised, and such other representations and agreements as may be required by the Company. The Exercise Notice shall be accompanied by payment of the aggregate Exercise Price as to all Exercised Shares. This Option shall be deemed to be exercised upon receipt by the Company of such fully executed Exercise Notice accompanied by the aggregate Exercise Price.

No Shares shall be issued pursuant to the exercise of an Option unless such issuance and such exercise comply with Applicable Laws. Assuming such compliance, for income tax purposes the Shares shall be considered transferred to the Optionee on the date on which the Option is exercised with respect to such Shares.

3. Optionee's Representations. In the event the Shares have not been registered under the Securities Act of 1933, as amended, at the time this Option is exercised, the Optionee shall, if required by the Company, concurrently with the exercise of all or any portion of this Option, deliver to the Company his or her Investment Representation Statement in the form attached hereto as Exhibit B.

4. Lock-Up Period. Optionee hereby agrees that Optionee shall not offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, any Common Stock (or other securities) of the Company or enter into any swap, hedging or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of any Common Stock (or other securities) of the Company held by Optionee (other

than those included in the registration) for a period specified by the representative of the underwriters of Common Stock (or other securities) of the Company not to exceed one hundred eighty (180) days following the effective date of any registration statement of the Company filed under the Securities Act (or such other period as may be requested by the Company or the underwriters to accommodate regulatory restrictions on (i) the publication or other distribution of research reports and (ii) analyst recommendations and opinions, including, but not limited to, the restrictions contained in NASD Rule 2711(f)(4) or NYSE Rule 472(f)(4), or any successor provisions or amendments thereto).

Optionee agrees to execute and deliver such other agreements as may be reasonably requested by the Company or the underwriter which are consistent with the foregoing or which are necessary to give further effect thereto. In addition, if requested by the Company or the representative of the underwriters of Common Stock (or other securities) of the Company, Optionee shall provide, within ten (10) days of such request, such information as may be required by the Company or such representative in connection with the completion of any public offering of the Company's securities pursuant to a registration statement filed under the Securities Act. The obligations described in this Section 4 shall not apply to a registration relating solely to employee benefit plans on Form S-1 or Form S-8 or similar forms that may be promulgated in the future, or a registration relating solely to a Commission Rule 145 transaction on Form S-4 or similar forms that may be promulgated in the future. The Company may impose stop-transfer instructions with respect to the shares of Common Stock (or other securities) subject to the foregoing restriction until the end of said one hundred eighty (180) day (or other) period. Optionee agrees that any transferee of the Option or shares acquired pursuant to the Option shall be bound by this Section 4.

5. Method of Payment. Payment of the aggregate Exercise Price shall be by any of the following, or a combination thereof, at the election of the Optionee:

(a) cash or check;

(b) consideration received by the Company under a formal cashless exercise program adopted by the Company in connection with the Plan; or

(c) surrender of other Shares which, (i) in the case of Shares acquired from the Company, either directly or indirectly, have been owned by the Optionee, and not subject to a substantial risk of forfeiture, for more than six (6) months on the date of surrender, and (ii) have a Fair Market Value on the date of surrender equal to the aggregate Exercise Price of the Exercised Shares.

6. Restrictions on Exercise. This Option may not be exercised until such time as the Plan has been approved by the stockholders of the Company, or if the issuance of such Shares upon such exercise or the method of payment of consideration for such shares would constitute a violation of any Applicable Law.

7. Non-Transferability of Option. This Option may not be transferred in any manner otherwise than by will or by the laws of descent or distribution and may be exercised during the

lifetime of Optionee only by Optionee. The terms of the Plan and this Option Agreement shall be binding upon the executors, administrators, heirs, successors and assigns of the Optionee.

8. Term of Option. This Option may be exercised only within the term set out in the Notice of Grant, and may be exercised during such term only in accordance with the Plan and the terms of this Option.

9. Tax Obligations.

(a) Withholding Taxes. Optionee agrees to make appropriate arrangements with the Company (or the Parent or Subsidiary employing or retaining Optionee) for the satisfaction of all Federal, state, local and foreign income and employment tax withholding requirements applicable to the Option exercise. Optionee acknowledges and agrees that the Company may refuse to honor the exercise and refuse to deliver Shares if such withholding amounts are not delivered at the time of exercise.

(b) Notice of Disqualifying Disposition of ISO Shares. If the Option granted to Optionee herein is an ISO, and if Optionee sells or otherwise disposes of any of the Shares acquired pursuant to the ISO on or before the later of (1) the date two years after the Date of Grant, or (2) the date one year after the date of exercise, the Optionee shall immediately notify the Company in writing of such disposition. Optionee agrees that Optionee may be subject to income tax withholding by the Company on the compensation income recognized by the Optionee.

10. Entire Agreement; Governing Law. The Plan is incorporated herein by reference. The Plan and this Option Agreement constitute the entire agreement of the parties with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the Company and Optionee with respect to the subject matter hereof, and may not be modified adversely to the Optionee's interest except by means of a writing signed by the Company and Optionee. This agreement is governed by the internal substantive laws but not the choice of law rules of California.

11. No Guarantee of Continued Service. OPTIONEE ACKNOWLEDGES AND AGREES THAT THE VESTING OF SHARES PURSUANT TO THE VESTING SCHEDULE HEREOF IS EARNED ONLY BY CONTINUING AS A SERVICE PROVIDER AT THE WILL OF THE COMPANY (NOT THROUGH THE ACT OF BEING HIRED, BEING GRANTED THIS OPTION OR ACQUIRING SHARES HEREUNDER). OPTIONEE FURTHER ACKNOWLEDGES AND AGREES THAT THIS AGREEMENT, THE TRANSACTIONS CONTEMPLATED HEREUNDER AND THE VESTING SCHEDULE SET FORTH HEREIN DO NOT CONSTITUTE AN EXPRESS OR IMPLIED PROMISE OF CONTINUED ENGAGEMENT AS A SERVICE PROVIDER FOR THE VESTING PERIOD, FOR ANY PERIOD, OR AT ALL, AND SHALL NOT INTERFERE IN ANY WAY WITH OPTIONEE'S RIGHT OR THE COMPANY'S RIGHT TO TERMINATE OPTIONEE'S RELATIONSHIP AS A SERVICE PROVIDER AT ANY TIME, WITH OR WITHOUT CAUSE.

Optionee acknowledges receipt of a copy of the Plan and represents that he or she is familiar with the terms and provisions thereof, and hereby accepts this Option subject to all of the terms and

provisions thereof. Optionee has reviewed the Plan and this Option in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Option and fully understands all provisions of the Option. Optionee hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Administrator upon any questions arising under the Plan or this Option. Optionee further agrees to notify the Company upon any change in the residence address indicated below.

OPTIONEE	**SILK ROAD MEDICAL, INC.**
Signature	*Signature*
«Name»	
Print Name	*Print Name*
	Title
Residence Address	
Email Address	

EXHIBIT A

2007 STOCK PLAN

EXERCISE NOTICE

Silk Road Medical, Inc.

Attention: _____

1. Exercise of Option. Effective as of today, _____, _____, the undersigned ("**Optionee**") hereby elects to exercise Optionee's option to purchase _____ shares of the Common Stock (the "**Shares**") of Silk Road Medical, Inc. (the "**Company**") under and pursuant to the 2007 Stock Plan (the "**Plan**") and the Stock Option Agreement dated «Date_of_Grant» (the "**Option Agreement**").

2. Delivery of Payment. Optionee herewith delivers to the Company the full purchase price of the Shares, as set forth in the Option Agreement, and any and all withholding taxes due in connection with the exercise of the Option.

3. Representations of Optionee. Optionee acknowledges that Optionee has received, read and understood the Plan and the Option Agreement and agrees to abide by and be bound by their terms and conditions.

4. Rights as Stockholder. Until the issuance of the Shares (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), no right to vote or receive dividends or any other rights as a stockholder shall exist with respect to the Optioned Stock, notwithstanding the exercise of the Option. The Shares shall be issued to the Optionee as soon as practicable after the Option is exercised in accordance with the Option Agreement. No adjustment shall be made for a dividend or other right for which the record date is prior to the date of issuance except as provided in Section 13 of the Plan.

5. Company's Right of First Refusal. Before any Shares held by Optionee or any transferee (either being sometimes referred to herein as the "**Holder**") may be sold or otherwise transferred (including transfer by gift or operation of law), the Company or its assignee(s) shall have a right of first refusal to purchase the Shares on the terms and conditions set forth in this Section 5 (the "**Right of First Refusal**").

(a) Notice of Proposed Transfer. The Holder of the Shares shall deliver to the Company a written notice (the "**Notice**") stating: (i) the Holder's bona fide intention to sell or otherwise transfer such Shares; (ii) the name of each proposed purchaser or other transferee ("**Proposed Transferee**"); (iii) the number of Shares to be transferred to each Proposed Transferee; and (iv) the bona fide cash price or other consideration for which the Holder proposes to transfer the Shares (the "**Offered Price**"), and the Holder shall offer the Shares at the Offered Price to the Company or its assignee(s).

(b) Exercise of Right of First Refusal. At any time within thirty (30) days after receipt of the Notice, the Company and/or its assignee(s) may, by giving written notice to the Holder, elect to purchase all, but not less than all, of the Shares proposed to be transferred to any one or more of the Proposed Transferees, at the purchase price determined in accordance with subsection (c) below.

(c) Purchase Price. The purchase price ("**Purchase Price**") for the Shares purchased by the Company or its assignee(s) under this Section 5 shall be the Offered Price. If the Offered Price includes consideration other than cash, the cash equivalent value of the non-cash consideration shall be determined by the Board of Directors of the Company in good faith.

(d) Payment. Payment of the Purchase Price shall be made, at the option of the Company or its assignee(s), in cash (by check), by cancellation of all or a portion of any outstanding indebtedness of the Holder to the Company (or, in the case of repurchase by an assignee, to the assignee), or by any combination thereof within thirty (30) days after receipt of the Notice or in the manner and at the times set forth in the Notice.

(e) Holder's Right to Transfer. If all of the Shares proposed in the Notice to be transferred to a given Proposed Transferee are not purchased by the Company and/or its assignee(s) as provided in this Section 5, then the Holder may sell or otherwise transfer such Shares to that Proposed Transferee at the Offered Price or at a higher price; *provided* that such sale or other transfer is consummated within 120 days after the date of the Notice, that any such sale or other transfer is effected in accordance with any applicable securities laws and that the Proposed Transferee agrees in writing that the provisions of this Section 5 shall continue to apply to the Shares in the hands of such Proposed Transferee. If the Shares described in the Notice are not transferred to the Proposed Transferee within such period, a new Notice shall be given to the Company, and the Company and/or its assignees shall again be offered the Right of First Refusal before any Shares held by the Holder may be sold or otherwise transferred.

(f) Exception for Certain Family Transfers. Anything to the contrary contained in this Section 5 notwithstanding, the transfer of any or all of the Shares during the Optionee's lifetime or on the Optionee's death by will or intestacy to the Optionee's immediate family or a trust for the benefit of the Optionee's immediate family shall be exempt from the provisions of this Section 5. "**Immediate Family**" as used herein shall mean spouse, lineal descendant or antecedent, father, mother, brother or sister. In such case, the transferee or other recipient shall receive and hold the Shares so transferred subject to the provisions of this Section 5, and there shall be no further transfer of such Shares except in accordance with the terms of this Section 5.

(g) Termination of Right of First Refusal. The Right of First Refusal shall terminate as to any Shares upon the earlier of (i) the first sale of Common Stock of the Company to the general public, or (ii) a Change in Control in which the successor corporation has equity securities that are publicly traded.

6. Tax Consultation. Optionee understands that Optionee may suffer adverse tax consequences as a result of Optionee's purchase or disposition of the Shares. Optionee represents that Optionee has consulted with any tax consultants Optionee deems advisable in connection with the purchase or disposition of the Shares and that Optionee is not relying on the Company for any tax advice.

7. Restrictive Legends and Stop-Transfer Orders.

(a) Legends. Optionee understands and agrees that the Company shall cause the legends set forth below or legends substantially equivalent thereto, to be placed upon any certificate(s) evidencing ownership of the Shares together with any other legends that may be required by the Company or by state or federal securities laws:

> THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 (THE "ACT") AND MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, PLEDGED OR HYPOTHECATED UNLESS AND UNTIL REGISTERED UNDER THE ACT OR, IN THE OPINION OF COMPANY COUNSEL SATISFACTORY TO THE ISSUER OF THESE SECURITIES, SUCH OFFER, SALE OR TRANSFER, PLEDGE OR HYPOTHECATION IS IN COMPLIANCE THEREWITH.
>
> THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO CERTAIN RESTRICTIONS ON TRANSFER AND A RIGHT OF FIRST REFUSAL HELD BY THE ISSUER OR ITS ASSIGNEE(S) AS SET FORTH IN THE EXERCISE NOTICE BETWEEN THE ISSUER AND THE ORIGINAL HOLDER OF THESE SHARES, A COPY OF WHICH MAY BE OBTAINED AT THE PRINCIPAL OFFICE OF THE ISSUER. SUCH TRANSFER RESTRICTIONS AND RIGHT OF FIRST REFUSAL ARE BINDING ON TRANSFEREES OF THESE SHARES.
>
> THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO RESTRICTIONS ON TRANSFER FOR A PERIOD NOT TO EXCEED 180 DAYS FOLLOWING THE EFFECTIVE DATE OF THE UNDERWRITTEN PUBLIC OFFERING OF THE COMPANY'S SECURITIES AND MAY NOT BE SOLD OR OTHERWISE DISPOSED OF BY THE HOLDER WITHOUT THE CONSENT OF THE COMPANY OR THE MANAGING UNDERWRITER.

(b) Stop-Transfer Notices. Optionee agrees that, in order to ensure compliance with the restrictions referred to herein, the Company may issue appropriate "stop transfer" instructions to its transfer agent, if any, and that, if the Company transfers its own securities, it may make appropriate notations to the same effect in its own records.

(c) Refusal to Transfer. The Company shall not be required (i) to transfer on its books any Shares that have been sold or otherwise transferred in violation of any of the provisions of this Exercise Notice or (ii) to treat as owner of such Shares or to accord the right to vote or pay dividends to any purchaser or other transferee to whom such Shares shall have been so transferred.

8. Successors and Assigns. The Company may assign any of its rights under this Exercise Notice to single or multiple assignees, and this Exercise Notice shall inure to the benefit of the successors and assigns of the Company. Subject to the restrictions on transfer herein set forth, this Exercise Notice shall be binding upon Optionee and his or her heirs, executors, administrators, successors and assigns.

9. Interpretation. Any dispute regarding the interpretation of this Exercise Notice shall be submitted by Optionee or by the Company forthwith to the Administrator which shall review such dispute at its next regular meeting. The resolution of such a dispute by the Administrator shall be final and binding on all parties.

10. Governing Law; Severability. This Exercise Notice is governed by the internal substantive laws but not the choice of law rules, of California. In the event that any provision hereof becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Exercise Notice will continue in full force and effect.

11. Entire Agreement. The Plan and Option Agreement are incorporated herein by reference. This Exercise Notice, the Plan, the Option Agreement and the Investment Representation Statement constitute the entire agreement of the parties with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the Company and Optionee with respect to the subject matter hereof, and may not be modified adversely to the Optionee's interest except by means of a writing signed by the Company and Optionee.

Submitted by: **OPTIONEE**	**Accepted by:** **SILK ROAD MEDICAL, INC.**
_____ *Signature*	_____ *Signature*
«Name» *Print Name*	_____ *Print Name*
	_____ *Title*
Address:	*Address:*
_____	_____
_____	_____
_____ *Email*	_____ *Date Received*

EXHIBIT B

INVESTMENT REPRESENTATION STATEMENT

OPTIONEE: «NAME»

COMPANY: SILK ROAD MEDICAL, INC.

SECURITY: COMMON STOCK

AMOUNT:

DATE:

In connection with the purchase of the above-listed Securities, the undersigned Optionee represents to the Company the following:

(a) Optionee is aware of the Company's business affairs and financial condition and has acquired sufficient information about the Company to reach an informed and knowledgeable decision to acquire the Securities. Optionee is acquiring these Securities for investment for Optionee's own account only and not with a view to, or for resale in connection with, any "distribution" thereof within the meaning of the Securities Act of 1933, as amended (the "**Securities Act**").

(b) Optionee acknowledges and understands that the Securities constitute "restricted securities" under the Securities Act and have not been registered under the Securities Act in reliance upon a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of Optionee's investment intent as expressed herein. In this connection, Optionee understands that, in the view of the Securities and Exchange Commission, the statutory basis for such exemption may be unavailable if Optionee's representation was predicated solely upon a present intention to hold these Securities for the minimum capital gains period specified under tax statutes, for a deferred sale, for or until an increase or decrease in the market price of the Securities, or for a period of one year or any other fixed period in the future. Optionee further understands that the Securities must be held indefinitely unless they are subsequently registered under the Securities Act or an exemption from such registration is available. Optionee further acknowledges and understands that the Company is under no obligation to register the Securities. Optionee understands that the certificate evidencing the Securities will be imprinted with any legend required under applicable state securities laws.

(c) Optionee is familiar with the provisions of Rule 701 and Rule 144, each promulgated under the Securities Act, which, in substance, permit limited public resale of "restricted securities" acquired, directly or indirectly from the issuer thereof, in a non-public offering subject to the satisfaction of certain conditions. Rule 701 provides that if the issuer qualifies under Rule 701 at the time of the grant of the Option to the Optionee, the exercise will be exempt from registration under the Securities Act. In the event the Company becomes subject to the reporting requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, ninety (90) days thereafter (or such

longer period as any market stand-off agreement may require) the Securities exempt under Rule 701 may be resold, subject to the satisfaction of certain of the conditions specified by Rule 144, including: (1) the resale being made through a broker in an unsolicited "broker's transaction" or in transactions directly with a market maker (as said term is defined under the Securities Exchange Act of 1934); and, in the case of an affiliate, (2) the availability of certain public information about the Company, (3) the amount of Securities being sold during any three month period not exceeding the limitations specified in Rule 144(e), and (4) the timely filing of a Form 144, if applicable.

In the event that the Company does not qualify under Rule 701 at the time of grant of the Option, then the Securities may be resold in certain limited circumstances subject to the provisions of Rule 144, which requires the resale to occur not less than one year after the later of the date the Securities were sold by the Company or the date the Securities were sold by an affiliate of the Company, within the meaning of Rule 144; and, in the case of acquisition of the Securities by an affiliate, or by a non-affiliate who subsequently holds the Securities less than two years, the satisfaction of the conditions set forth in sections (1), (2), (3) and (4) of the paragraph immediately above.

(d) Optionee further understands that in the event all of the applicable requirements of Rule 701 or 144 are not satisfied, registration under the Securities Act, compliance with Regulation A, or some other registration exemption will be required; and that, notwithstanding the fact that Rules 144 and 701 are not exclusive, the Staff of the Securities and Exchange Commission has expressed its opinion that persons proposing to sell private placement securities other than in a registered offering and otherwise than pursuant to Rules 144 or 701 will have a substantial burden of proof in establishing that an exemption from registration is available for such offers or sales, and that such persons and their respective brokers who participate in such transactions do so at their own risk. Optionee understands that no assurances can be given that any such other registration exemption will be available in such event.

OPTIONEE

_____

Signature

«Name»

Print Name

Date

SILK ROAD MEDICAL, INC.

2007 STOCK PLAN

STOCK OPTION AGREEMENT

Unless otherwise defined herein, the terms defined in the 2007 Stock Plan shall have the same defined meanings in this Stock Option Agreement.

I. NOTICE OF STOCK OPTION GRANT

Name: «Name»

The undersigned Optionee has been granted an Option to purchase Common Stock of the Company, subject to the terms and conditions of the Plan and this Option Agreement, as follows:

Date of Grant	«Date_of_Grant»
Vesting Commencement Date	«Vesting_Commencement_Date»
Exercise Price per Share	«Price_Per_Share»
Total Number of Shares Granted	«Shares»
Total Exercise Price	«Exercise_Price»
Type of Option:	«Type»
Term/Expiration Date:	«Expiration_Date»

Vesting Schedule:

This Option shall be exercisable, in whole or in part, according to the following vesting schedule:

«Vesting_Schedule»

Notwithstanding the foregoing Vesting Schedule, if Optionee ceases to be a Service Provider due to termination by the Company other than for Cause, death or Disability or resignation by the Optionee for Good Reason, in each instance within twelve (12) months following a Change in Control, one hundred percent (100%) of the then unvested Shares subject to this Option will immediately vest.

"**Cause**" means either: (1) Optionee's failure to perform Optionee's assigned duties or responsibilities as a Service Provider (other than a failure resulting from the Optionee's death or Disability) after notice thereof from the Company describing Optionee's failure to perform such duties or responsibilities; (2) Optionee engaging in any act of dishonesty, fraud or misrepresentation; (3) Optionee's violation of any federal or state law or regulation applicable to the business of the Company or its affiliates; (4) Optionee's breach of any confidentiality agreement or invention assignment agreement between Optionee and the Company (or any affiliate of the Company); or (5) Optionee being convicted of, or entering a plea of nolo contendere to, any crime or committing any act of moral turpitude.

"**Good Reason**" means Optionee's resignation within thirty (30) days following the expiration of any Company cure period (discussed below) following the occurrence of any of the following, without Optionee's written consent: (1) a material reduction of Optionee's authority, duties or responsibilities; (2) a material reduction of Optionee's base compensation; or (3) a material change in the primary geographic location at which Optionee must perform Optionee's services for the Company; provided that in no instance will Optionee's relocation to a facility or a location that is twenty-five (25) miles or less from Optionee's then current office location be deemed material for purposes of this definition. Optionee's resignation will not be deemed to be for Good Reason unless Optionee has first provided the Company with written notice of the acts or omissions constituting the grounds for "Good Reason" within thirty (30) days of the initial existence of the grounds for "Good Reason" and a reasonable cure period of not less than thirty (30) days following the date the Company receives such notice, and such condition has not been cured during such period.

Termination Period:

This Option shall be exercisable for three (3) months after Optionee ceases to be a Service Provider. Upon Optionee's death or Disability, this Option may be exercised for one (1) year after Optionee ceases to be a Service Provider. In no event may Optionee exercise this Option after the Term/Expiration Date as provided above.

AGREEMENT

1. Grant of Option. The Plan Administrator of the Company hereby grants to the Optionee named in the Notice of Grant (the "**Optionee**"), an option (the "**Option**") to purchase the number of Shares set forth in the Notice of Grant, at the exercise price per Share set forth in the Notice of Grant (the "**Exercise Price**"), and subject to the terms and conditions of the Plan, which is incorporated herein by reference. Subject to Section 15(c) of the Plan, in the event of a conflict between the terms and conditions of the Plan and this Option Agreement, the terms and conditions of the Plan shall prevail.

If designated in the Notice of Grant as an Incentive Stock Option ("**ISO**"), this Option is intended to qualify as an Incentive Stock Option as defined in Section 422 of the Code. Nevertheless, to the extent that it exceeds the $100,000 rule of Code Section 422(d), this Option shall be treated as a Nonstatutory Stock Option ("**NSO**").

2. Exercise of Option.

(a) Right to Exercise. This Option shall be exercisable during its term in accordance with the Vesting Schedule set out in the Notice of Grant and with the applicable provisions of the Plan and this Option Agreement.

(b) Method of Exercise. This Option shall be exercisable by delivery of an exercise notice in the form attached as Exhibit A (the "**Exercise Notice**") which shall state the election to exercise the Option, the number of Shares with respect to which the Option is being exercised, and such other representations and agreements as may be required by the Company. The Exercise Notice shall be accompanied by payment of the aggregate Exercise Price as to all Exercised Shares. This Option shall be deemed to be exercised upon receipt by the Company of such fully executed Exercise Notice accompanied by the aggregate Exercise Price.

No Shares shall be issued pursuant to the exercise of an Option unless such issuance and such exercise comply with Applicable Laws. Assuming such compliance, for income tax purposes the Shares shall be considered transferred to the Optionee on the date on which the Option is exercised with respect to such Shares.

3. Optionee's Representations. In the event the Shares have not been registered under the Securities Act of 1933, as amended, at the time this Option is exercised, the Optionee shall, if required by the Company, concurrently with the exercise of all or any portion of this Option, deliver to the Company his or her Investment Representation Statement in the form attached hereto as Exhibit B.

4. Lock-Up Period. Optionee hereby agrees that Optionee shall not offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, any Common Stock (or other securities) of the Company or enter into any swap, hedging or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of any Common Stock (or other securities) of the Company held by Optionee (other than those included in the registration) for a period specified by the representative of the underwriters of Common Stock (or other securities) of the Company not to exceed one hundred eighty (180) days following the effective date of any registration statement of the Company filed under the Securities Act (or such other period as may be requested by the Company or the underwriters to accommodate regulatory restrictions on (i) the publication or other distribution of research reports and (ii) analyst recommendations and opinions, including, but not limited to, the restrictions contained in NASD Rule 2711(f)(4) or NYSE Rule 472(f)(4), or any successor provisions or amendments thereto).

Optionee agrees to execute and deliver such other agreements as may be reasonably requested by the Company or the underwriter which are consistent with the foregoing or which are necessary to give further effect thereto. In addition, if requested by the Company or the representative of the underwriters of Common Stock (or other securities) of the Company, Optionee shall provide, within ten (10) days of such request, such information as may be required by the Company or such representative in connection with the completion of any public offering of the Company's securities pursuant to a registration statement filed under the Securities Act. The obligations described in this Section 4 shall not apply to a registration relating solely to employee benefit plans on Form S-1 or Form S-8 or similar forms that may be promulgated in the future, or a registration relating solely to a Commission Rule 145 transaction on Form S-4 or similar forms that may be promulgated in the future. The Company may impose stop-transfer instructions with respect to the shares of Common Stock (or other securities) subject to the foregoing restriction until the end of said one hundred eighty (180) day (or other) period. Optionee agrees that any transferee of the Option or shares acquired pursuant to the Option shall be bound by this Section 4.

5. Method of Payment. Payment of the aggregate Exercise Price shall be by any of the following, or a combination thereof, at the election of the Optionee:

(a) cash or check;

(b) consideration received by the Company under a formal cashless exercise program adopted by the Company in connection with the Plan; or

(c) surrender of other Shares which, (i) in the case of Shares acquired from the Company, either directly or indirectly, have been owned by the Optionee, and not subject to a substantial risk of forfeiture, for more than six (6) months on the date of surrender, and (ii) have a Fair Market Value on the date of surrender equal to the aggregate Exercise Price of the Exercised Shares.

6. Restrictions on Exercise. This Option may not be exercised until such time as the Plan has been approved by the stockholders of the Company, or if the issuance of such Shares upon such exercise or the method of payment of consideration for such shares would constitute a violation of any Applicable Law.

7. Non-Transferability of Option. This Option may not be transferred in any manner otherwise than by will or by the laws of descent or distribution and may be exercised during the lifetime of Optionee only by Optionee. The terms of the Plan and this Option Agreement shall be binding upon the executors, administrators, heirs, successors and assigns of the Optionee.

8. Term of Option. This Option may be exercised only within the term set out in the Notice of Grant, and may be exercised during such term only in accordance with the Plan and the terms of this Option.

9. Tax Obligations.

(a) Withholding Taxes. Optionee agrees to make appropriate arrangements with the Company (or the Parent or Subsidiary employing or retaining Optionee) for the satisfaction of all Federal, state, local and foreign income and employment tax withholding requirements applicable to the Option exercise. Optionee acknowledges and agrees that the Company may refuse to honor the exercise and refuse to deliver Shares if such withholding amounts are not delivered at the time of exercise.

(b) Notice of Disqualifying Disposition of ISO Shares. If the Option granted to Optionee herein is an ISO, and if Optionee sells or otherwise disposes of any of the Shares acquired pursuant to the ISO on or before the later of (1) the date two years after the Date of Grant, or (2) the date one year after the date of exercise, the Optionee shall immediately notify the Company in writing of such disposition. Optionee agrees that Optionee may be subject to income tax withholding by the Company on the compensation income recognized by the Optionee.

10. Entire Agreement; Governing Law. The Plan is incorporated herein by reference. The Plan and this Option Agreement constitute the entire agreement of the parties with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the Company and Optionee with respect to the subject matter hereof, and may not be modified adversely to the Optionee's interest except by means of a writing signed by the Company and Optionee. This agreement is governed by the internal substantive laws but not the choice of law rules of California.

11. No Guarantee of Continued Service. OPTIONEE ACKNOWLEDGES AND AGREES THAT THE VESTING OF SHARES PURSUANT TO THE VESTING SCHEDULE HEREOF IS EARNED ONLY BY CONTINUING AS A SERVICE PROVIDER AT THE WILL OF THE COMPANY (NOT THROUGH THE ACT OF BEING HIRED, BEING GRANTED THIS OPTION OR ACQUIRING SHARES HEREUNDER). OPTIONEE FURTHER ACKNOWLEDGES AND AGREES THAT THIS AGREEMENT, THE TRANSACTIONS CONTEMPLATED HEREUNDER AND THE VESTING SCHEDULE SET FORTH HEREIN DO NOT CONSTITUTE AN EXPRESS OR IMPLIED PROMISE OF CONTINUED ENGAGEMENT AS A SERVICE PROVIDER FOR THE VESTING PERIOD, FOR ANY PERIOD, OR AT ALL, AND SHALL NOT INTERFERE IN ANY WAY WITH OPTIONEE'S RIGHT OR THE COMPANY'S RIGHT TO TERMINATE OPTIONEE'S RELATIONSHIP AS A SERVICE PROVIDER AT ANY TIME, WITH OR WITHOUT CAUSE.

Optionee acknowledges receipt of a copy of the Plan and represents that he or she is familiar with the terms and provisions thereof, and hereby accepts this Option subject to all of the terms and provisions thereof. Optionee has reviewed the Plan and this Option in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Option and fully understands all provisions of the Option. Optionee hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Administrator upon any questions arising under the Plan or this Option. Optionee further agrees to notify the Company upon any change in the residence address indicated below.

OPTIONEE	**SILK ROAD MEDICAL, INC.**
_____	_____
Signature	*Signature*
«Name»	
_____	_____
Print Name	*Print Name*
_____	_____
_____	
Residence Address	
_____	
Email Address	

EXHIBIT A

2007 STOCK PLAN

EXERCISE NOTICE

Silk Road Medical, Inc.

Attention: _____

1. Exercise of Option. Effective as of today, _____, _____, the undersigned ("**Optionee**") hereby elects to exercise Optionee's option to purchase _____ shares of the Common Stock (the "**Shares**") of Silk Road Medical, Inc. (the "**Company**") under and pursuant to the 2007 Stock Plan (the "**Plan**") and the Stock Option Agreement dated «Date_of_Grant» (the "**Option Agreement**").

2. Delivery of Payment. Optionee herewith delivers to the Company the full purchase price of the Shares, as set forth in the Option Agreement, and any and all withholding taxes due in connection with the exercise of the Option.

3. Representations of Optionee. Optionee acknowledges that Optionee has received, read and understood the Plan and the Option Agreement and agrees to abide by and be bound by their terms and conditions.

4. Rights as Stockholder. Until the issuance of the Shares (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), no right to vote or receive dividends or any other rights as a stockholder shall exist with respect to the Optioned Stock, notwithstanding the exercise of the Option. The Shares shall be issued to the Optionee as soon as practicable after the Option is exercised in accordance with the Option Agreement. No adjustment shall be made for a dividend or other right for which the record date is prior to the date of issuance except as provided in Section 13 of the Plan.

5. Company's Right of First Refusal. Before any Shares held by Optionee or any transferee (either being sometimes referred to herein as the "**Holder**") may be sold or otherwise transferred (including transfer by gift or operation of law), the Company or its assignee(s) shall have a right of first refusal to purchase the Shares on the terms and conditions set forth in this Section 5 (the "**Right of First Refusal**").

(a) Notice of Proposed Transfer. The Holder of the Shares shall deliver to the Company a written notice (the "**Notice**") stating: (i) the Holder's bona fide intention to sell or otherwise transfer such Shares; (ii) the name of each proposed purchaser or other transferee ("**Proposed Transferee**"); (iii) the number of Shares to be transferred to each Proposed Transferee; and (iv) the bona fide cash price or other consideration for which the Holder proposes to transfer the Shares (the "**Offered Price**"), and the Holder shall offer the Shares at the Offered Price to the Company or its assignee(s).

(b) Exercise of Right of First Refusal. At any time within thirty (30) days after receipt of the Notice, the Company and/or its assignee(s) may, by giving written notice to the Holder, elect to purchase all, but not less than all, of the Shares proposed to be transferred to any one or more of the Proposed Transferees, at the purchase price determined in accordance with subsection (c) below.

(c) Purchase Price. The purchase price ("**Purchase Price**") for the Shares purchased by the Company or its assignee(s) under this Section 5 shall be the Offered Price. If the Offered Price includes consideration other than cash, the cash equivalent value of the non-cash consideration shall be determined by the Board of Directors of the Company in good faith.

(d) Payment. Payment of the Purchase Price shall be made, at the option of the Company or its assignee(s), in cash (by check), by cancellation of all or a portion of any outstanding indebtedness of the Holder to the Company (or, in the case of repurchase by an assignee, to the assignee), or by any combination thereof within thirty (30) days after receipt of the Notice or in the manner and at the times set forth in the Notice.

(e) Holder's Right to Transfer. If all of the Shares proposed in the Notice to be transferred to a given Proposed Transferee are not purchased by the Company and/or its assignee(s) as provided in this Section 5, then the Holder may sell or otherwise transfer such Shares to that Proposed Transferee at the Offered Price or at a higher price; *provided* that such sale or other transfer is consummated within 120 days after the date of the Notice, that any such sale or other transfer is effected in accordance with any applicable securities laws and that the Proposed Transferee agrees in writing that the provisions of this Section 5 shall continue to apply to the Shares in the hands of such Proposed Transferee. If the Shares described in the Notice are not transferred to the Proposed Transferee within such period, a new Notice shall be given to the Company, and the Company and/or its assignees shall again be offered the Right of First Refusal before any Shares held by the Holder may be sold or otherwise transferred.

(f) Exception for Certain Family Transfers. Anything to the contrary contained in this Section 5 notwithstanding, the transfer of any or all of the Shares during the Optionee's lifetime or on the Optionee's death by will or intestacy to the Optionee's immediate family or a trust for the benefit of the Optionee's immediate family shall be exempt from the provisions of this Section 5. "**Immediate Family**" as used herein shall mean spouse, lineal descendant or antecedent, father, mother, brother or sister. In such case, the transferee or other recipient shall receive and hold the Shares so transferred subject to the provisions of this Section 5, and there shall be no further transfer of such Shares except in accordance with the terms of this Section 5.

(g) Termination of Right of First Refusal. The Right of First Refusal shall terminate as to any Shares upon the earlier of (i) the first sale of Common Stock of the Company to the general public, or (ii) a Change in Control in which the successor corporation has equity securities that are publicly traded.

6. Tax Consultation. Optionee understands that Optionee may suffer adverse tax consequences as a result of Optionee's purchase or disposition of the Shares. Optionee represents that Optionee has consulted with any tax consultants Optionee deems advisable in connection with

the purchase or disposition of the Shares and that Optionee is not relying on the Company for any tax advice.

7. Restrictive Legends and Stop-Transfer Orders.

(a) Legends. Optionee understands and agrees that the Company shall cause the legends set forth below or legends substantially equivalent thereto, to be placed upon any certificate(s) evidencing ownership of the Shares together with any other legends that may be required by the Company or by state or federal securities laws:

THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 (THE "ACT") AND MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, PLEDGED OR HYPOTHECATED UNLESS AND UNTIL REGISTERED UNDER THE ACT OR, IN THE OPINION OF COMPANY COUNSEL SATISFACTORY TO THE ISSUER OF THESE SECURITIES, SUCH OFFER, SALE OR TRANSFER, PLEDGE OR HYPOTHECATION IS IN COMPLIANCE THEREWITH.

THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO CERTAIN RESTRICTIONS ON TRANSFER AND A RIGHT OF FIRST REFUSAL HELD BY THE ISSUER OR ITS ASSIGNEE(S) AS SET FORTH IN THE EXERCISE NOTICE BETWEEN THE ISSUER AND THE ORIGINAL HOLDER OF THESE SHARES, A COPY OF WHICH MAY BE OBTAINED AT THE PRINCIPAL OFFICE OF THE ISSUER. SUCH TRANSFER RESTRICTIONS AND RIGHT OF FIRST REFUSAL ARE BINDING ON TRANSFEREES OF THESE SHARES.

THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO RESTRICTIONS ON TRANSFER FOR A PERIOD NOT TO EXCEED 180 DAYS FOLLOWING THE EFFECTIVE DATE OF THE UNDERWRITTEN PUBLIC OFFERING OF THE COMPANY'S SECURITIES AND MAY NOT BE SOLD OR OTHERWISE DISPOSED OF BY THE HOLDER WITHOUT THE CONSENT OF THE COMPANY OR THE MANAGING UNDERWRITER.

(b) Stop-Transfer Notices. Optionee agrees that, in order to ensure compliance with the restrictions referred to herein, the Company may issue appropriate "stop transfer" instructions to its transfer agent, if any, and that, if the Company transfers its own securities, it may make appropriate notations to the same effect in its own records.

(c) Refusal to Transfer. The Company shall not be required (i) to transfer on its books any Shares that have been sold or otherwise transferred in violation of any of the provisions of this Exercise Notice or (ii) to treat as owner of such Shares or to accord the right to vote or pay dividends to any purchaser or other transferee to whom such Shares shall have been so transferred.

8. Successors and Assigns. The Company may assign any of its rights under this Exercise Notice to single or multiple assignees, and this Exercise Notice shall inure to the benefit

of the successors and assigns of the Company. Subject to the restrictions on transfer herein set forth, this Exercise Notice shall be binding upon Optionee and his or her heirs, executors, administrators, successors and assigns.

9. Interpretation. Any dispute regarding the interpretation of this Exercise Notice shall be submitted by Optionee or by the Company forthwith to the Administrator which shall review such dispute at its next regular meeting. The resolution of such a dispute by the Administrator shall be final and binding on all parties.

10. Governing Law; Severability. This Exercise Notice is governed by the internal substantive laws but not the choice of law rules, of California. In the event that any provision hereof becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Exercise Notice will continue in full force and effect.

11. Entire Agreement. The Plan and Option Agreement are incorporated herein by reference. This Exercise Notice, the Plan, the Option Agreement and the Investment Representation Statement constitute the entire agreement of the parties with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the Company and Optionee with respect to the subject matter hereof, and may not be modified adversely to the Optionee's interest except by means of a writing signed by the Company and Optionee.

Submitted by:	Accepted by:
OPTIONEE	**SILK ROAD MEDICAL, INC.**
_____	_____
Signature	*Signature*
«Name»	
Print Name	*Print Name*
	_____
	Title
Address:	*Address:*
_____	_____
_____	_____
_____	_____
_____	_____
Email	*Date Received*

EXHIBIT B

INVESTMENT REPRESENTATION STATEMENT

OPTIONEE: «NAME»

COMPANY: SILK ROAD MEDICAL, INC.

SECURITY: COMMON STOCK

AMOUNT:

DATE:

In connection with the purchase of the above-listed Securities, the undersigned Optionee represents to the Company the following:

(a) Optionee is aware of the Company's business affairs and financial condition and has acquired sufficient information about the Company to reach an informed and knowledgeable decision to acquire the Securities. Optionee is acquiring these Securities for investment for Optionee's own account only and not with a view to, or for resale in connection with, any "distribution" thereof within the meaning of the Securities Act of 1933, as amended (the "**Securities Act**").

(b) Optionee acknowledges and understands that the Securities constitute "restricted securities" under the Securities Act and have not been registered under the Securities Act in reliance upon a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of Optionee's investment intent as expressed herein. In this connection, Optionee understands that, in the view of the Securities and Exchange Commission, the statutory basis for such exemption may be unavailable if Optionee's representation was predicated solely upon a present intention to hold these Securities for the minimum capital gains period specified under tax statutes, for a deferred sale, for or until an increase or decrease in the market price of the Securities, or for a period of one year or any other fixed period in the future. Optionee further understands that the Securities must be held indefinitely unless they are subsequently registered under the Securities Act or an exemption from such registration is available. Optionee further acknowledges and understands that the Company is under no obligation to register the Securities. Optionee understands that the certificate evidencing the Securities will be imprinted with any legend required under applicable state securities laws.

(c) Optionee is familiar with the provisions of Rule 701 and Rule 144, each promulgated under the Securities Act, which, in substance, permit limited public resale of "restricted securities" acquired, directly or indirectly from the issuer thereof, in a non-public offering subject to the satisfaction of certain conditions. Rule 701 provides that if the issuer qualifies under Rule 701 at the time of the grant of the Option to the Optionee, the exercise will be exempt from registration under the Securities Act. In the event the Company becomes subject to the reporting requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, ninety (90) days thereafter (or such

longer period as any market stand-off agreement may require) the Securities exempt under Rule 701 may be resold, subject to the satisfaction of certain of the conditions specified by Rule 144, including: (1) the resale being made through a broker in an unsolicited "broker's transaction" or in transactions directly with a market maker (as said term is defined under the Securities Exchange Act of 1934); and, in the case of an affiliate, (2) the availability of certain public information about the Company, (3) the amount of Securities being sold during any three month period not exceeding the limitations specified in Rule 144(e), and (4) the timely filing of a Form 144, if applicable.

In the event that the Company does not qualify under Rule 701 at the time of grant of the Option, then the Securities may be resold in certain limited circumstances subject to the provisions of Rule 144, which requires the resale to occur not less than one year after the later of the date the Securities were sold by the Company or the date the Securities were sold by an affiliate of the Company, within the meaning of Rule 144; and, in the case of acquisition of the Securities by an affiliate, or by a non-affiliate who subsequently holds the Securities less than two years, the satisfaction of the conditions set forth in sections (1), (2), (3) and (4) of the paragraph immediately above.

(d) Optionee further understands that in the event all of the applicable requirements of Rule 701 or 144 are not satisfied, registration under the Securities Act, compliance with Regulation A, or some other registration exemption will be required; and that, notwithstanding the fact that Rules 144 and 701 are not exclusive, the Staff of the Securities and Exchange Commission has expressed its opinion that persons proposing to sell private placement securities other than in a registered offering and otherwise than pursuant to Rules 144 or 701 will have a substantial burden of proof in establishing that an exemption from registration is available for such offers or sales, and that such persons and their respective brokers who participate in such transactions do so at their own risk. Optionee understands that no assurances can be given that any such other registration exemption will be available in such event.

OPTIONEE

_____

Signature

«Name»

Print Name

Date

Supply Agreement

This Supply Agreement ("**Agreement**") is entered into as of the Effective Date by and between Cordis Corporation, a corporation duly organized and existing under the laws of the state of Florida and having its principal office at 430 Route 22 East, Bridgewater, NJ 08807-0908 ("**Cordis**" and a "**Party**"), and Silk Road Medical, Inc., a corporation duly organized and existing under the laws of the state of Delaware and having its principal office at 735 North Pastoria Avenue, Sunnyvale, California 94085 ("**SRM**", a "**Party**", and collectively with Cordis, the "**Parties**").

WHEREAS, Cordis and SRM entered into a License Agreement on December 17, 2010 ("**License Agreement**") whereby Cordis licensed to SRM certain intellectual property related to the PRECISE® Carotid Stent System, including the right to reference clinical data and other information contained in the Cordis Premarket Approval Application P030047, and all supplements thereto, for SRM to develop a modified stent delivery system optimized for transcervical implantation of the PRECISE® carotid stent;

WHEREAS, the License Agreement contemplates, among other things, Cordis and SRM working together for the development, manufacture and supply of Product (defined below);

WHEREAS, SRM wishes to obtain supply of Product from Cordis for conducting preclinical and clinical trials with the Product and for commercializing Product upon SRM's receipt of necessary regulatory approvals and/or clearances; and

WHEREAS, the Parties wish to work together pursuant to the terms of this Agreement.

NOW THEREFORE, in consideration of the premises and the mutual covenants contained herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

1. DEFINITIONS

All capitalized terms shall have the same meaning as in the License Agreement, unless otherwise defined herein this Article 1 or elsewhere in this Agreement.

1.1. "**Applicable Laws**" means all laws, statutes, ordinances, codes, rules, regulations, guidelines and procedures enacted or made by any government, division or agency thereof with applicable jurisdiction, including a Regulatory Authority, that are in force during the Term.

1.2. "**Clinical Study**" means a clinical study conducted by SRM to test the safety and/or efficacy and/or functional performance of the Product.

1.3. "**Development Services**" shall have the meaning set forth in Section 2.2 of this Agreement.

1.4. "**Effective Date**" of this Agreement shall mean the last date of signature below.

[***] Information has been omitted and submitted separately to the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

1.5. "**Facility**" means the manufacturing facility owned by Cordis de Mexico, S.A. de C.V. located in Juarez, Mexico ("**Cordis Mexico**"), where the Development Services and the Product will be manufactured, and for which Cordis has a service agreement with Cordis de Mexico, S.A. de C.V. to perform services for Cordis as set forth in Section 2.5.

1.6. "**Product**" shall mean a stent delivery system with a PRECISE® carotid stent, for use only for transcervical implantation, manufactured and packaged, sterilized, and supplied by Cordis or its affiliates or subcontractors, in accordance with the Specifications. Until such time as the Specification is agreed to by the Parties in writing signed by an authorized representative of each Party, the Product shall mean a stent delivery system with a PRECISE® carotid stent for use only for transcervical implantation as described in the Product Description.

1.7. "**Product Description**" shall mean the design inputs, as set forth in Exhibit 1, as may be amended by the Parties in writing signed by an authorized representative of each Party.

1.8. "**QS**" shall mean (a) current Quality System Regulations (QSR), as defined by the FDA and International Conference on Harmonization (ICH) guidelines, including 21 C.F.R, § 820 *et seq.;* and (b) all laws, rules, guidelines, regulations and standards of governmental authorities (including without limitation ISO 9001/ISO13485) in the United States, Europe and/or at the location of the Facility, that apply to the Product, the manufacturing process, the documentation or the Facility, or any other facilities in which the manufacturing process is performed.

1.9. "**Specification**" shall mean the device master record, including, but not limited to the guidelines and requirements for the design, composition, product safety assurance, manufacture, packaging, sterilization, and/or quality control for the Product, and the specification itself, which are agreed to in a writing signed by an authorized representative of each Party, and which following such written agreement, shall be incorporated by reference in this Agreement as if attached hereto. Any amendment to the Specification may be made only according to the terms and conditions of Section 2.3 of this Agreement.

1.10. "**SRM Neuroprotection System**" means MICHITM Neuroprotection System, an access and embolic protection system for transcervical carotid artery stenting procedures which is owned and/or controlled by SRM.

1.11. "**Term**" shall have the meaning set forth in Section 11.1 of this Agreement.

2. PRODUCT DEVELOPMENT AND MANUFACTURE

2.1. Development and Manufacture. Cordis will perform Development Services, manufacture, and sell the Product to SRM in conformance with the Specifications, QS, Applicable Laws and otherwise in accordance with the terms and conditions of this Agreement and the License Agreement,

2.2. Design Development. Cordis will perform the development services in accordance with Cordis' standard design control procedures and as set forth in Exhibits 1-4 and the time periods set forth in Exhibit 4 (the "**Development Services**"), Cordis shall provide SRM the

design review deliverables and applicable documentation as set forth in Exhibit 2 (the "Design and Development Plan"). As part of the Development Services, Cordis will supply Product to SRM according to the volume and schedule in Exhibit 3 for SRM's internal testing purposes.

2.2.1. Quality System. Cordis will use its QS procedures, including, but not limited to its standard design control procedures for all Development Services and procedures for manufacturing, documentation control, purchasing control, material identification, production and process controls, inspection and measurement controls, product acceptance activities, and change control, as it pertains to the development and manufacture of the Product.

2.2.2. Design and Development Planning. Cordis will conduct design reviews and generate documents in accordance with Cordis' standard design control procedures. Cordis will provide reasonable notice of all scheduled design reviews with respect to the Product and SRM will have the right to attend and contribute to the design reviews. If there are any delays by Cordis in the implementation of the Design and Development Plan, and meeting the timelines set forth therein, Cordis shall provide notice in writing of any such delays to SRM. In the event Cordis is unable to complete any of the Milestones (as defined in Section 2.4.1) upon the timelines set forth in Exhibit 4, Cordis shall provide notice in writing to SRM explaining any such delays, and the Parties shall meet and confer as to amendments to the timeline and how to expedite the completion of the Milestones within a reasonable timeframe.

2.3. Changes to Manufacturing of Product.

2.3.1. Cordis Changes. Notwithstanding Section 6.2(c) of the License

Agreement,

(i) Cordis may make changes to the Specification and/or manufacture of the Product, without SRM's approval (including without limitation the manufacturing processes and raw materials contained therein or otherwise used to manufacture the Product), provided that such changes are within the ranges set forth in the Specification and Cordis (a) provides advance written notice to SRM of such changes, and (b) provides to SRM, pursuant to the criteria set forth in Form 12364266 (attached as Exhibit 7 to this Agreement), as may be amended by Cordis, and Form 12553603, (attached as Exhibit 8 to this Agreement), as may be amended by Cordis, a regulatory assessment of the changes to the specification and/or manufacture of the PRECISE® Carotid Stent System, such assessment is provided "as is," without any representations or warranties, and shall be treated as Cordis Confidential Information, and (c) provides timely confirmation to SRM that the regulatory assessment in 233 (i)(b) did not require approval of a Regulatory Authority for the changes to the specification and/or manufacture of the PRECISE® Carotid Stent System,

such confirmation is provided “as is,” without representations or warranties, and shall be treated as Cordis Confidential Information. hi the event that any change by Cordis within the ranges set forth in the Specification requires Cordis receive approval of a Regulatory Authority for the PRECISE® Carotid Stent System, and therefore SRM receive approval of a Regulatory Authority for the Product, SRM may within fifteen (15) days of the date of delivery of the regulatory assessment, submit to Cordis one (1) purchase order for up to six (6) months of forecast (the forecast as described in Exhibit 5, Section 1) Product, manufactured according to the pre-change Specification and manufacturing process, such six (6) month period shall begin the next immediate month following the date of notice and continue for the next five (5) months, and such Product to be delivered by Cordis to SRM upon mutually agreed to delivery dates in writing; except that if after using commercially reasonable efforts to obtain raw materials, such materials are not available, Cordis shall have no obligation to supply Product pursuant to this sentence. In the case of a change pursuant to Section 2.3.1(1), except as set forth in this Section 2.3.1(i), Cordis shall have no obligation to supply Product according to the pre-change Specification or manufacturing process.

(ii) Cordis may make changes to the Specification and/or manufacture of the Product, outside the ranges set forth in the Specification, provided that (a) Cordis provides advance written notice to SRM of such changes, (b) Cordis provides a regulatory assessment of the changes to the specification and/or manufacture of the PRECISE® Carotid Stent System, such assessment is provided “as is,” without representations or warranties, and shall be treated as Cordis Confidential Information, and (c) Cordis provides SRM copies of engineering studies of the changes to the Specification and/or manufacture of the Product. In the case of a Cordis change pursuant to Section 2.3.1(ii) upon such written notice, SRM may within fifteen (15) days of the date of delivery of such notice, submit one (1) purchase order for up to six (6) months of forecast (the forecast as described in Exhibit 5, Section 1) Product, manufactured according to the pre-change Specification and manufacturing process, such six (6) month period shall begin the next immediate month following the date of notice and continue for the next five (5) months, and such Product to be delivered by Cordis to SRM upon mutually agreed to delivery dates; except that if after using

commercially reasonable efforts to obtain raw materials, such raw materials are not available, Cordis shall have no obligation to supply Product pursuant to this sentence. In the event that the change pursuant to this Section 2.3.1(0) relates to a change in the Facility, SRM may within fifteen (15) days of the date of delivery of such notice, submit one (1) purchase order for Product to be manufactured according to the pre-change Specification and manufacturing process, such amount not to exceed up to six (6) months of forecast (the forecast as described in Exhibit 5, Section 1) Product, such six (6) month period shall begin the next immediate month following the date of notice and continue for the next five (5) months, and such Product to be delivered by Cordis to SRM upon mutually agreed to delivery dates. In the case of a change pursuant to Section 2.3.1(0), except as set forth in this Section 2.3.1(0, Cordis shall have no obligation to supply Product according to the pre-change Specification or manufacturing process.

(iii) Cordis shall provide advance notice to SRM of any proposed changes to Cordis' methodology of conducting such regulatory assessments under Section 2.3.1(i) pursuant to Form 12364266 and Form 12553603, to permit SRM to timely evaluate any potential or actual impact of such changes on the Parties agreed-to procedure under this Section 2.3.1.

2.3.2. SRM Changes. If SRM requests any change to the Specification and/or manufacture of the Product, whether or not such change is within or outside of the ranges set forth in the Specification, SRM must submit the change to Cordis in writing specifying a detailed description of the change, rationale for the change, and requested date of implementation of the change. Cordis shall review each SRM change request and either approve or reject the change request in writing within thirty (30) days of receipt of such written change request. Specifically, any approval by Cordis to implement a change request must be done in writing signed by an authorized representative of Cordis, and shall specify a detailed description of the change and the estimated date or time period by which Cordis anticipates implementing such change. If a change request is approved by Cordis according to this Section 2,3.2, and such change requires SRM receive approval of a Regulatory Authority, Cordis shall (i) provide to SRM any data generated by Cordis to validate a change that is required by Regulatory Authority and (ii) Cordis shall continue to supply SRM with the Product according to the pre-change Specification and manufacturing process until the earlier to occur of (a) approval of the change to the Product from a Regulatory Authority or (b) in the case that the same or similar change is submitted to a Regulatory Authority by Cordis for Cordis' PRECISE® Carotid Stent System, upon Cordis' receipt of approval of the change for Cordis' PRECISE® Carotid Stent System. In the event that a similar change is submitted to a Regulatory Authority by Cordis for Cordis' PRECISE® Carotid Stent System, and that change is approved by a Regulatory Authority before the similar change for the Product is approved by a Regulatory Authority, then Cordis will provide written notice of the approval for the Cordis PRECISE® Carotid Stent System and SRM

may within fifteen (15) days of the date of delivery of such notice, submit to Cordis one (1) purchase order for up to six (6) months of forecast (the forecast as described in Exhibit 5, Section 1) Product, manufactured according to the pre-change Specification and manufacturing process, such six (6) month period shall begin the next immediate month following the date of notice and continue for the next five (5) months, and such Product to be delivered by Cordis to SRM upon mutually agreed to delivery dates; except that if after using commercially reasonable efforts to obtain raw materials, such materials are not available, Cordis shall have no obligation to supply Product pursuant to this sentence. Nothing herein this Section 2.3.2 or elsewhere in this Agreement shall require Cordis to implement a change request by SRM.

2.4. Payment for Development.

2.4.1. Payment Terms. SRM shall pay Cordis for the Development Service in accordance with the milestones set forth in Exhibit 4 (each a "Milestone"), and the terms and conditions of this Section 2.4 (the "Development Fees"). Upon completion of each Milestone, Cordis shall submit an invoice to SRM for payment in accordance with Exhibit 4. In the event that the Milestones set forth in Exhibit 4 are completed within one hundred and eighty (180) days from the Effective Date of this Agreement, SRM shall pay Cordis a one-time, non-creditable bonus of [**********] for early completion of the Milestones ("**Early Bonus**"). For clarity, if Cordis does not complete all Milestones within one hundred and eighty (180) days from the Effective Date of this Agreement, Cordis shall not be entitled to the Early Bonus. All invoices shall be sent to the address specified in the purchase order therefor. All payments shall be made by direct bank transfer to an account designated by Cordis' invoice or by check payable to Cordis. Payment terms shall be thirty (30) days from SRM's receipt of the applicable invoice.

2.5. Subcontracting. Cordis may subcontract the Development Services and any other activities under this Agreement, including without limitation, to Cordis Mexico, S.A. de C.V.; provided, however, that Cordis shall at all times remain responsible for the obligations under this Agreement and for any subcontractor's performance of any of the Development Services and any other activities under this Agreement.

3. PRODUCT SUPPLY

3.1. Supply for Clinical Studies. Cordis will manufacture for, and supply to, SRM Product for use in Clinical Studies as set forth in this Section 3.1.

3.1.1. Clinical Studies Approvals. SRM shall be solely responsible for obtaining any governmental approvals required for carrying out the Clinical Studies. SRM shall obtain Institutional Review Board or Ethics Committee (or equivalent, as required by Applicable Law) review and approval of all aspects of each Clinical Study.

3.1.2. Delivery. Upon Cordis' completion of the Development Services, SRM may submit purchase orders for Product to be used by SRM in a Clinical Study. For supply of Product for use in a Clinical Study, SRM shall place orders by written purchase order a minimum of will deliver Products on or before the date of delivery set forth in the purchase order. In the event Cordis becomes aware that it may be unable to deliver any Products within the time period set forth

in the immediate foregoing sentence, Cordis shall promptly notify SRM, and the Parties shall cooperate to develop a delivery schedule which is mutually agreeable.

3.2. Commercial Supply. Cordis will manufacture for, and supply to SRM, Product for SRM's commercial sale commencing on the anticipated approval or clearance of the Product by a Regulatory Authority for marketing of the Product in the applicable jurisdiction by SRM. The terms and conditions for forecasts, orders and deliveries for commercial Product are set forth in Exhibit 5 attached hereto,

3.3. Minimum Volumes. Except as set forth in Section 3.3.1, commencing the first calendar year following the later of (i) FDA approval or clearance of the Product, or (ii) FDA approval or clearance of the SRM Neuroprotection System, SRM agrees that SRM will purchase (A) a minimum of [**********] units of Product during the first full calendar year, and (B) minimum of [**********] units of Product annually thereafter (the "**Minimum Volume**"). The Minimum Volume shall be binding on SRM until the natural expiration of the License Agreement, due to expiration of the last-to-expire of the Licensed IP, if the License Agreement remains in effect through such natural expiration, For the avoidance of doubt, Cordis may terminate this Agreement according to Section 11.2., if SRM fails to meet the Minimum Volume requirement set forth in this Section 3.3 and Section 3.3.1.

3.3.1. Minimum Volume Exceptions. In the case SRM is permitted to have Nitinol Device and Components, Inc. or a third party Manufacturer provide supply of Product, according to the terms and conditions set forth in Section 10.1, sentence 2, the Minimum Volume shall not apply for the calendar year(s) in which Cordis is not able to supply Product or not able to supply Product in quantities required of Cordis as set forth in Exhibit 5, Section 2, and following such calendar year(s) the Minimum Volume shall be reduced by fifty percent (50%) for the remainder of the Term of this Agreement.

4. PAYMENT FOR SUPPLY.

4.1. Price. Except as otherwise provided herein, the price for supply of Products under Section 3.1 or 3.2 shall be as set forth in Exhibit 6, and shall remain firm for the Term of this Agreement. Cordis may proportionately increase the price for supply of Product if the cost of any raw material or component used to manufacture the Product or used in the actual Product increases by five percent (5%) or greater. The price of Product does not include the fees, costs, and expenses for the transportation of the Product. Each calendar year, the Parties will discuss in good faith whether any changes in volumes, market conditions, and/or cost savings achieved by Cordis in manufacturing the Product (including, without limitation, any reduction in prices of raw materials and components) warrant a reduction in price to SRM, and if so, what that reduction will be for the following year. Any reduction in price of the Product must be agreed to in writing signed by an authorized representative of Cordis.

4.2. Invoicing; Payment. Cordis shall submit an invoice to SRM upon shipment of Product ordered by SRM hereunder. All invoices shall be sent to the address specified in the purchase order therefor. All payments shall be made by direct bank transfer to an account designated by Cordis' invoice or by check payable to Cordis. Payment terms shall be thirty (30) days from the

later of (i) SRM's receipt of an invoice or (ii) SRM's receipt of the Products. Payment by SRM shall not constitute acceptance of the Product or impair SRM's right of inspection.

5. QUALITY

5.1. Quality Assurance. All Products supplied by Cordis shall meet the current Specifications therefor and shall be manufactured in accordance with the Specifications, Applicable Laws and QS procedures at Cordis' Facility,

5.1.1. Cordis shall maintain ISO 13485 status, and shall inform SRM of any changes of this status, including any changes in manufacturing site. Cordis shall provide SRM with a copy of its ISO certification,

5.1.2. Cordis shall maintain component and production control procedures, and environmental controls in accordance with its standard internal operating procedures. Cordis shall qualify and approve all suppliers of components and services according to Cordis' standard internal operating procedures.

5.1.3. Cordis shall provide copies of all available design verification and process validation testing results that have been performed by Cordis for the Product, as set forth in Exhibit 2.

5.1.4. Cordis shall disclose to SRM in a timely manner material warning letters or similar notices received from a Regulatory Authority relating to the Facility or FDA import alerts for products manufactured in its Facility during the Term,

5.2. Records. Cordis shall maintain all records necessary to comply with the QS, Specifications and Applicable Laws relating to the manufacture, packaging, testing, storage and shipment of Products for a minimum of five (5) years; provided, however, that all records relating to the manufacture, stability, and quality control of each batch of Product shall be retained until the Parties mutually agree to dispose of such records.

5.3. Audit. Upon reasonable written notice given by SRM to Cordis, during normal business hours, and in such a manner that does not unreasonably interfere with Cordis' normal business activities no more than once a year or upon any action by a Regulatory Authority relative to the Product or the Facility, Cordis shall permit a third party auditor mutually agreed upon by the Parties in writing, with agreement not to be unreasonably withheld, (and then only after such third party auditor agrees in writing to the keep Cordis' Confidential Information confidential under the terms materially the same as those incorporated in this Agreement), to access and analyze the part of the Facility used for manufacturing, production and storage of Product and Cordis' device master, device history and quality system records relating to the manufacture of the Product (including, without limitation, batch records and SOPs), and permit such third party auditor to (i) verify compliance of Cordis with this Agreement including QS and Applicable Laws, and (ii) make quality assurance audits of the facilities and of the procedures and processes used by Cordis in manufacturing, packaging, testing, storing and shipping Products.

5.4. Recalls. The Parties acknowledge and agree that Section 6.7 (Removals and Corrections (Recalls)) of the License Agreement is hereby incorporated by reference into this Agreement. SRM shall be solely responsible for communicating and retrieving Product from third party customers, that is subject to any removal, correction or other field action relating to the Product. Prior to SRM providing written communication to a third party customer, SRM shall provide Cordis with the proposed written communication, so that Cordis may review and provide input on the content of such communication. In the event Cordis does not provide its input (i) within twenty-four (24) hours after delivery of such proposed written communication by SRM to Cordis if such notice is initially provided on or during a business day, or (ii) by the close of the first business day following delivery of such proposed written communication by SRM to Cordis if such notice is initially provided on or during a weekend or a holiday, SRM may proceed to disperse such proposed written communication. The costs, fees, and expenses of any removal, correction or other field action relating to a Product shall be solely paid by SRM, with the exception if the removal, correction or other field action is caused by Cordis' failure to manufacture the Product to the Specifications, Cordis shall be responsible for the reasonable costs, fees and expenses of such removal, correction or field action to the extent the removal, correction or field action is related to Cordis' failure to manufacture the Product to the Specifications.

5.5. Defective Product. SRM shall notify Cordis in writing of the existence and nature of any Product that it determines does not meet the Specifications, and SRM shall return the Product with a description of the defect to Cordis, within thirty (30) days of such determination by SRM. Cordis shall have a reasonable opportunity, not to exceed fifteen (15) business days from receipt of notification and Product, to inspect such Product. Cordis shall within forty-five (45) days replace and pay for the cost of transportation and disposition of any item that Cordis determines does not meet the Specifications or is otherwise defective. If, after Cordis' inspection of any Product, the Parties disagree as to whether such Product meets the Specifications, Cordis may deliver the Product to an independent third-party laboratory, mutually and reasonably acceptable to both Parties, for testing to confirm such Product's conformance to the Specifications. All costs associated with such third-party testing shall be at SRM's expense unless the tested item is deemed by such third-party to not meet the Specifications, in which case all such costs, including reimbursement of transportation and disposition costs, shall be promptly paid by Cordis to SRM.

6. REPRESENTATIONS AND WARRANTIES; DISCLAIMERS

6.1. Mutual Representations and Warranties. In addition to the warranties set forth in Section 8.2.2, each Party represents and warrants to the other that: (i) it is duly organized, validly existing, and in good standing in the jurisdiction in which it is incorporated, (ii) it has full corporate power and authority to carry on its business as presently conducted and as contemplated in this Agreement, to execute and deliver this Agreement, and to perform its obligations hereunder; (iii) the execution, delivery and performance of this Agreement do not and will not (A) violate any law, rule, regulation, order, decree or permit which is applicable to it or (B) violate its organizational documents or any agreement to which it is a Party; and (iv) this Agreement is a legal and binding obligation of it, enforceable against it in accordance with its terms, except to the extent enforceability is modified by bankruptcy, reorganization and other similar laws affecting the rights of creditors generally and by general principles of equity.

6.2. Product Representations and Warranties.

6.2.1. Cordis. Cordis warrants and represents that: (i) all Product supplied to SRM hereunder shall comply with the Specifications for the Product; (ii) the Facility, and all Products supplied to SRM hereunder meet Applicable Laws, Regulatory Authority's requirements for commercialization of the Product, and QS; (iii) Development Services shall be conducted in a professional manner, with due care and in accordance with industry standards, and (iv) title to all Products supplied to SRM hereunder shall pass to SRM as provided herein free and clear of any security interest, lien, or other encumbrance.

6.2.2. SRM. SRM agrees that the warranty set forth in Section 6.2.1 does not include Products that have defects or failures resulting from the design of the Product, as distinct from the manufacture or workmanship thereof, including without limitation, design functionality or failures relating to the function of the Product for SRM's intended purpose.

6.3. DEVELOPMENT SERVICES DISCLAIMER. OTHER THAN AS EXPRESSLY SET FORTH IN SECTIONS 2.1, 22, 5.1, AND 6.1(iii) OF THIS AGREEMENT OR SECTION 7.2 OR SECTION 7.3 OF THE LICENSE AGREEMENT, THE DEVELOPMENT SERVICES PERFORMED BY CORDIS OR BY A THIRD PARTY CONTRACTED BY CORDIS (INCLUDING THE DELIVERABLES) ARE PROVIDED TO SRM "AS IS," AND CORDIS AND ITS DIRECTORS, OFFICERS, EMPLOYEES, AND AFFILIATES MAKE NO REPRESENTATIONS OR WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARCULAR PURPOSE, OR NONINFRINGEMENT OF THE INTELLECTUAL PROPERTY RIGHTS OF A THIRD PARTY.

6.4. PRODUCT DISCLAIMER. OTHER THAN AS EXPRESSLY SET FORTH IN SECTIONS 2.1, 22, 5.1, 6.1 AND 6.2 OF THIS AGREEMENT OR SECTION 7.2 OR SECTION 7.3 OF THE LICENSE AGREEMENT, SRM AGREES THE WARRANTIES SET FORTH IN SECTION 6.2.1 OF THIS AGREEMENT ARE THE ONLY WARRANTIES APPLICABLE TO THE PRODUCT AND CORDIS AND ITS DIRECTORS, OFFICERS, EMPLOYEES, AND AFFILIATES MAKE NO OTHER REPRESENTATIONS OR WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, OR NONINFRINGEMENT OF THE INTELLECTUAL PROPERTY RIGHTS OF A THIRD PARTY.

7. REGULATORY MATTERS

7.1. Adverse Events. The Parties acknowledge and agree that Section 6.6 (Handling of Customer Complaints/Medical Device Reporting/Adverse Reaction and Device Defect Reporting) of the License Agreement is hereby incorporated by reference into this Agreement.

7.2. Communications. The Parties acknowledge and agree that SRM is solely responsible for filing any and all medical device reports or otherwise communicating with the FDA or any other Regulatory Authority with respect to the Products. If SRM files any medical device report concerning the Products, it will promptly notify Cordis of its filing in writing. If Cordis is

required by Applicable Laws, or a Regulatory Authority to disclose information directly to such Regulatory Authority, Cordis shall promptly notify SRM in writing of the requirement and the particulars of the information required to be disclosed prior to such disclosure, and shall provide SRM copies of all information and materials provided to such authorities and summaries of communications with such authorities. Further, each Party shall have the right to be present and to participate at all face-to-face meetings and scheduled conference calls between the other Party and such Regulatory Authority or any Facility inspections with respect to the manufacturing of the Products under this Agreement.

7.3. Government Inspection. As it pertains to the manufacture of Products by Cordis, (i) Cordis shall permit the FDA and other Regulatory Authorities, as applicable, to conduct such inspections of the Facility as such authority may request, and shall cooperate with the Regulatory Authorities with respect to such inspections and any related matters, (ii) Cordis shall give SRM reasonable notice of any scheduled inspections, and notice within twenty four (24) hours after any unannounced visit or inspection by any Regulatory Authority, (iii) to the extent practical under the circumstances, Cordis shall allow SRM or its representative to assist in the preparation for and be present at such inspections, (iv) Cordis shall keep SRM informed about the results and conclusions of each such Regulatory Authority inspection, including actions taken by Cordis to remedy conditions cited in such inspections, and (v) Cordis shall promptly provide SRM with copies of any written inspection reports issued by such Regulatory Authority and all correspondence between Cordis and the Regulatory Authority involved, including, but not limited to, FDA Form 483 and all correspondence relating thereto.

8. COMPLIANCE.

8.1. General Compliance with Laws. Each Party agrees to exercise commercially reasonable efforts to the extent required by law to materially comply with the applicable provisions of any Federal or state law and all executive orders, rules and regulations issued thereunder, whether now or hereafter in force, including Executive Order 11246, as amended, Chapter 60 of Title 41 of the Code of Federal Regulations, as amended, prohibiting discrimination against any employee or applicant for employment because of race, color, religion, sex or national origin; Section 60-741.1 of Chapter 60 of 41 Code of Federal Regulations, as amended, prohibiting discrimination against any employee or applicant for employment because of physical or mental handicap; Section 60.250.4 of Chapter 60 of 41 Code of Federal Regulations, as amended, providing for the employment of disabled veterans and veterans of the Vietnam era; Chapter 1 of Title 48 of the Code of Federal Regulations, as Amended, Federal Acquisition Regulations; Sections 6, 7 and 12 of the Fair Labor Standards Act, as amended, and the regulations and orders of the United States Department of Labor promulgated in connection therewith; and any provisions, representations or agreements required thereby to be included in this Agreement are hereby incorporated by reference.

8.2. Healthcare Compliance Laws and Policies. No part of any consideration paid hereunder is a prohibited payment for the recommending or arranging for the referral of business or the ordering of items or services; nor are any payments, or contributions of free products intended to induce illegal referrals of business. Each Party shall exercise commercially reasonable efforts to materially comply with laws, regulations, including safe harbor regulations, and official guidance

pertaining to state and federal anti-kickback laws (42 U.S.C. §§ 1320a-7b, et seq. and its implementing regulations), and laws prohibiting the submission of false claims to governmental or private health care payors (31 U.S.C. §§ 3729, et seq. and its implementing regulations), and the Limitation on Certain Physician Referrals, also referred to as the "Stark Law" (42 U.S.C. 1395 (n)). SRM represents and warrants that it understands and agrees that it shall use commercially reasonable efforts to ensure that the sale, distribution, and marketing of Product by SRM and its representatives shall be performed in material compliance with all laws and regulation, including, but not limited to, those healthcare related laws and regulations provided in this Section 8.2. Each Party shall be responsible for using commercially reasonable efforts to materially for (i) ensuring that its employees, agents, representatives, independent contractors, officers and directors comply with the requirements of this Section 8.2, including conducting training as necessary, (ii) establishing a process for SRM and its employees, agents, representatives, independent contractors, officers and directors to report any violations of the compliance requirements set forth in this Section 8.2, and (iii) reporting any such compliance violations. Any and all material violations must be reported by SRM to Cordis by calling 1-800-556-2596, and by Cordis to SRM, by calling 1-408-720-9002 extension 101, as the case may be.

8.2.1. Patient and Individual Privacy Protections.

8.2.1.1. Protected Health Information under HIPAA. In the event that the investigation of Product complaints or other information about the Product involves the use or disclosure of Protected Health Information (as defined under the United States HIPAA Privacy Requirements) by health care providers, the Parties shall use commercially reasonable efforts to ensure that the use of the Protected Health Information materially complies with any HIPAA Privacy Requirements that apply to such Protected Health Information. The "HIPAA Privacy Requirements" refer collectively to the applicable provisions of the Administrative Simplification section of HIPAA - the Health Insurance Portability and Accountability Act of 1996 (as codified at 42 U.S.C. § 1320d-8) and any regulations promulgated thereunder, including without limitation, the federal privacy regulations (45 CFR Parts 160 and 164) and the federal security standards (45 CFR Part 142).

8.2.1.2. Consent to Use and Disclose Information. In the event that the services provided under this Agreement involve direct interactions with patients, consumers or caregivers, SRM shall obtain written consent from any such persons providing Cordis the right to use and disclose the information collected from such persons.

8.2.2. Debarment. Each Party warrants that to the best of its knowledge and belief, it and its employees, agents and subcontractors are: (i) not excluded from a United States federal health care program as outlined in Sections 1128 and 1156 of the United States Social Security Act (see the Office of Inspector General of the Department of Health and Human Services List of Excluded Individuals/Entities at http://www.oig.hhs.gov/FRAUD/exclusions/listofexcluded.html); (ii) not debarred by the FDA under 21 United States Code 335a (see the FDA Office of Regulatory Affairs Debarment List at http://www.fda,gov/orakompliance ref/debar/); (iii) otherwise not excluded from contracting with the federal government (see the Excluded Parties Listing System at http://epls.arnet.gov); and (iv) if required, duly licensed and in good standing in

accordance with applicable state laws to perform its obligations under this Agreement. In addition, the Parties agree to use commercially reasonable efforts to materially comply with all applicable laws, rules and regulations, including the federal anti-kickback stature (42 United States Code §§ 1320a-7(b)) and the related safe harbor regulations. These shall be ongoing representations and warranties during the Term of this Agreement and each Party shall immediately notify the other Party of any change in the status of the representations and warranties set forth in this Section.

8.3. Foreign Corrupt Practices Act. In connection with this Agreement or the License Agreement, each Party will exercise commercially reasonable efforts to materially comply fully with the U.S. Foreign Corrupt Practices Act ("FCPA") and the substantive provisions of applicable anti-bribery legislation, specifically those that were enacted to implement the OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions dated November 21, 1997, as well as any amendments thereto ("Convention"). Each Party will not make any payments or offers to pay anything of value to any government official in contravention of the FCPA or the Convention. If at any time during the Term of this Agreement, either Party learns that any foreign government official (i) owns an interest in or is an officer, director or employee, agent, representative or independent contractor of such Party, or (ii) has any legal or beneficial interest in payments to be received by such Party hereunder, such Party will notify the other Party and take actions to ensure that such government official does not take any action, official or otherwise, and/or use any influence in connection with the other Party's business. Each Party warrants that it has not and will not pay or offer, directly or indirectly, any commission or finders or referral fee to any person or entity in connection with its activities under this Agreement unless it has obtained prior written approval from the other Party.

9. PROPERTY RIGHTS; LICENSES; CORDIS DE MEXICO CONFIDENTIAL INFORMATION

9.1. SRM Materials. Other than as provided in Section 5 of the License Agreement, SRM shall retain all right, title and interest in and to the Specifications, designs, drawings, blueprints, paid for by SRM in connection with this Agreement or the License Agreement (collectively, the "**SRM Materials**"); and to the extent that Cordis would otherwise have any interest in or to the SRM Materials, Cordis hereby irrevocably transfers, conveys and assigns to SRM, and its successors and assigns, all right, title, and interest in and to the SRM Materials. Cordis agrees to execute such documents and take such other actions as SRM may reasonably request to evidence and perfect the foregoing. For the avoidance of doubt, SRM agrees that notwithstanding that SRM has all right, title and interest to the SRM Materials, SRM has no right to practice, duplicate or otherwise use Cordis Technology or Cordis Confidential Information contained in or incorporated by reference in SRM Materials, except to the extent permitted by the License Agreement and only for the period that the License Agreement is in effect. Accordingly, SRM agrees that unless permitted by the License Agreement, SRM is prohibited from practicing, duplicating, or otherwise using the Cordis Technology or Cordis Confidential Information that is contained in such SRM Materials,

9.2. License to Cordis. In addition, to Section 5 of the License Agreement, SRM hereby grants to Cordis a non-exclusive, nontransferable license to the SRM Property solely to perform the Development Services and manufacture the Products ordered by SRM hereunder and

deliver such Products to SRM or its designee as specified in this Agreement. For purposes of the foregoing, "**SRM Property**" shall mean SRM Materials, confidential information, data and such other intellectual property rights (including patent rights) owned or controlled by SRM during the Term of this Agreement, to the extent related to the development and manufacture of the Product.

9.3. Cordis Mexico Confidential Information. SRM recognizes and agrees that all information provided by Cordis Mexico to SRM shall be receive the same treatment as Cordis Confidential Information, as required by Section 9 of the License Agreement, Similarly, Cordis shall cause Cordis Mexico to be compliant with SRM Confidential Information as required by Section 9 of the License Agreement.

10. THIRD PARTY MANUFACTURE AND FAILURE TO SUPPLY

10.1. Third Party Manufacturer. Notwithstanding the terms and conditions of Section 6.1(a) of the License Agreement, Cordis shall be the sole manufacturer of the Product during the Term of this Agreement, unless (i) Cordis fails to supply Product, as set forth in Section 10.2, (ii) Cordis provides written notice to SRM that it cannot meet SRM's requirements of supply of Product, (iii) Cordis is not able or willing to make the improvements, modifications or changes to the Product requested by SRM according to the terms and conditions of Section 2.3.2, (iv) the Cordis facility is subject to a consent decree or injunction which materially adversely affects Cordis' ability to supply SRM Product pursuant to the terms of this Agreement, or (v) the PRECISE® carotid stent is subject to an investigation or enforcement action by a Regulatory Authority or has been recalled, in either case in a way that materially adversely affects Cordis' ability to supply SRM pursuant to the terms of this Agreement. If any of the foregoing situations occurs, upon SRM's election, (A) Cordis shall permit Nitinol Devices and Components, Inc. or a third party Manufacturer to provide supply of Product to SRM in accordance with Section 6.1 of the License Agreement, and (B) Cordis shall remain a manufacturer and supplier of Product to SRM under Sections 10.1(i)-(iii) to the extent Cordis is able to do so, even if Nitinol Devices and Components, Inc. or a third party Manufacturer is permitted also to supply product to SRM under Section 10.1(A). If this Agreement is terminated by SRM according to Section 11.3.2 or by SRM or Cordis according to Section 11.3.3, or if Cordis terminates this Agreement for breach according to Section 11.2, or if, under subsection (v) of this Section, further manufacture by Nitinol Devices and Components, Inc. or a third party Manufacturer would not be legally permissible due to the nature of the investigation, enforcement action or recall (but only to the extent of the duration of the impermissibility), SRM shall not be permitted to have Nitinol Devices and Components, Inc. or a third party Manufacturer manufacture Product. For the avoidance of doubt, and notwithstanding anything in this Agreement to the contrary, the Parties acknowledge and agree that SRM, without Cordis' consent, may work directly with Nitinol Devices and Components, Inc. for the development and supply of next-generation products that materially expand or change the Specifications herein.

10.2. Failure to Supply. If Cordis fails to supply at least seventy five (75%) of the quantities of Product set forth in purchase orders for two (2) consecutive calendar quarters in accordance with either of Section 3.1 or Section 3.2 of this Agreement, then SRM shall seek supply from Nitinol Devices and Components, Inc. or a third party Manufacturer if Nitinol Devices and Components, Inc. is not able to manufacture, and in either case only with the advanced written

consent of Cordis, with such consent not to be unreasonably withheld as provided in Section 6.1(a) of the License Agreement, Subject to Section 11.3.1, nothing in this Section 10.2 shall amend or revise SRM's obligation to pay Cordis the Development Fees for the Development Services performed by Cordis, as set forth in Section 2.4 of this Agreement.

11. TERM

11.1. Term. This Agreement shall commence on the Effective Date and shall continue in full force and effect until earlier to occur of (a) termination as provided in this Article 11, (b) termination of the License Agreement pursuant to the terms of the License Agreement, (c) the Parties mutually agree in writing signed by an authorized representative of each Party, to terminate this Agreement, or (d) upon election by SRM if and when Cordis approves another Manufacturer in accordance with Section 10.1 or 10.2 of this Agreement (the "**Term**").

11.2. Termination by Either Party for Cause or for Insolvency. This Agreement may be terminated prior to the expiration of the Term, by written notice stating the grounds of termination, by either Party to the other Party, without payment of penalty or damages by the Party giving such notice, at any time during the Term of this Agreement: (a) if the other Party is in material breach of its obligations hereunder and has not cured such breach within thirty (30) days after written notice requesting cure of the breach (in the event the breach is cured within such thirty (30) day period the termination shall be of no effect), or (b) upon the filing or institution of bankruptcy, liquidation or receivership proceedings, provided, however, in the case of any involuntary bankruptcy proceeding such right to terminate shall only become effective if such other Party consents to the involuntary bankruptcy or such proceeding is not dismissed within ninety (90) days after the filing thereof.

11.3. Other Termination Rights.

11.3.1. Cordis. Cordis may terminate this Agreement without penalty or damages upon One Hundred Eight (180) days' prior written notice if (i) Cordis will no longer manufacture and/or sell the Cordis PRECISE carotid stent, or (ii) Cordis reduces capacity of its production facilities in a manner that materially impairs Cordis' ability to supply to SRM Product in accordance with this Agreement, or (iii) Cordis permits Nitinol Devices and Components, Inc. or a third party Manufacturer to manufacture the Product pursuant to the terms of Section 10.1(iv) and 10.1(v) of this Agreement, provided that if either (i) and/or (ii) and/or (iii) occurs any time prior to (a) the first anniversary of the Effective Date, Cordis shall reimburse SRM for One Hundred Percent (100%) of the fees paid by SRM pursuant to Section 2.4, (b) the second anniversary of the Effective Date, Cordis shall reimburse SRM for Seventy Five Percent (75%) of the fees paid by SRM pursuant to Section 2.4 of this Agreement, or (c) the third anniversary of the Effective Date, Cordis shall reimburse SRM for Fifty Percent (50%) of the fees paid by SRM pursuant to Section 2.4 of this Agreement

11.3.2. SRM. SRM may terminate this Agreement sixty (60) days after written notice to Cordis in the event that SRM determines (i) it is not commercially reasonable to continue to pursue regulatory clearance or approval of the Product, (ii) the Product does not receive

approval or clearance by a Regulatory Authority or such approval or clearance is withdrawn, or (iii) it will discontinue sale of Products.

11.3.3. Termination for Regulatory Reasons. Either Party may terminate this Agreement without penalty or damages in the event that regulatory clearance or approval in either the U.S. or the European Union is revoked, such revocation to constitute a presumption that the Product design is deemed unsafe.

11.4. Effect of Expiration or Termination and Survival. Expiration or termination of this Agreement shall not relieve either Party of any obligation of such Party accruing prior to such termination. Any expiration or termination of this Agreement shall be without prejudice to the rights of either Party against the other Party which accrued or is accruing under this Agreement prior to expiration or termination. The provisions of Article 1 (Definitions), Article 4 (Payment for Supply), Section 5.2 (Records), Section 5.3 (Audit) (for one year after termination), Section 5.4 (Recalls), Article 6 (Representations and Warranties; Disclaimers), Article 7 (Regulatory Matters), Article 8 (Compliance), Section 9.1 (SRM Materials), Section 9.3 (Cordis Mexico Confidential Information), Sections 11.2 —11.6 (Term), Article 12 (Indemnification), Article 13 (Insurance; Limitation on Damages) and Article 14, (Miscellaneous) survive expiration or termination of this Agreement as specified herein.

11.5. Transition. Upon termination of this Agreement pursuant to Section 11.3.1 and upon SRM's request, Cordis shall, in accordance with the terms and conditions of this Agreement, permit SRM to within thirty (30) days of delivery of Cordis' notice, to place one (1) purchase order for up to twelve (12) months of forecast (the forecast as described in Exhibit 5, Section 1) Product times 1.5 units, manufactured according to the pre-change Specification and manufacturing process, such twelve (12) month period shall begin the next immediate month following the date of notice and continue for the next eleven (11) months, and such Product to be delivered by Cordis to SRM, three (3) months, six (6) months, and nine (9) months following Cordis' receipt of a purchase order, and each Product shall have upon Cordis shipment to SRM, a minimum use by date remaining of twenty-three (23) months. In addition, to the extent manufacturing is permitted to move to Nitinol Devices and Components, Inc. or a third party Manufacturer in accordance with Section 6.1 of the License Agreement, Cordis and SRM shall work together to ensure orderly transition of the manufacturing responsibilities at SRM's cost and expense. For the avoidance of doubt, SRM shall bear the cost and expense of directly billed fees from Nitinol Devices and Components, Inc. or a third party Manufacturer in connection with establishing manufacturing capabilities and supply of Product, and Cordis will provide, at its cost and expense, reasonable transition assistance in accordance with Section 6.1(b) of the License Agreement, but only if the License Agreement is in effect,

11.6. Excess and Obsolete Inventory. Any reasonable inventory (including raw materials, components, work-in-process, or Product) or orders for components and raw materials which are non-cancelable, non-returnable, and otherwise non-usable (including by Cordis or its affiliates for purposes of manufacturing products other than Product) that were ordered by Cordis or its affiliates pursuant to binding orders and are rendered excess or obsolete due to (i) termination of this Agreement by Cordis for SRM's breach of this Agreement as set forth in Section 11.2, or

(ii) termination of this Agreement by either Cordis or SRM according to Section 11.3.2 or 11.3.3 of this Agreement, or (iii) to the extent of the cancellation of one or more of SRM's purchase orders by SRM without cause, will be the sole financial responsibility of SRM. SRM shall make payment to Cordis for all excess and obsolete inventory set forth in this Section, upon thirty (30) days of Cordis' delivery of an invoice.

12. INDEMNIFICATION

12.1. SRM. SRM shall indemnify, defend and hold harmless Cordis, its directors, officers, employees, agents, successors and assigns (the "Cordis Parties") from and against any liabilities, expenses or costs (including reasonable attorneys' fees and court costs) ("Damages") arising out of any claim, complaint, suit, proceeding or cause of action against any of them by a third party, including a claim of patent infringement ("Claim") resulting from (i) the design of the Product, (ii) the use of the MICHI Neuroprotection System; (iii) the use of the Product; (iv) the negligent or intentionally wrongful acts or omissions of SRM, its affiliates, or their directors, officers, agents, employees or consultants; (v) any breach by SRM of Section 8 or its representations and warranties in this Agreement; in the case of (iv) and (v) except to the extent any such Damages arise from, are caused by, or aggravated by the negligent or intentional misconduct of Cordis, the Cordis Parties, or Cordis' indemnification obligations in Section 12.2.

12.2. Cordis. Cordis shall indemnify, defend and hold harmless SRM, its directors, officers, employees, agents, successors and assigns (the "SRM Parties") from and against all Damages arising out of any Claim resulting from (i) the manufacture or supply of Product that fails to meet the Specifications, Applicable Laws, QS, or the requirements of this Agreement, (ii) the negligent or intentionally wrongful acts or omissions of Cordis, its affiliates, or their directors, officers, agents, employees or consultants; (iii) infringement of third party process intellectual property in the provision of Development Services or manufacture of Product; and (iv) any breach by Cordis of any of its representations and warranties or Section 8 of this Agreement; each of (i) — (iv) except to the extent any such Damages arise from, are caused by, or aggravated by the negligent or intentional misconduct of SRM, the SRM Parties, or SRM's indemnification obligations in Section 12.1.

12.3. Indemnification Procedure. Any Cordis Party or SRM Party seeking indemnification under this Article 12 (the "**Indemnitee**") shall promptly notify the indemnifying Party (the "**Indemnitor**") in writing of such claim, including a detailed description of the claim (the "Indemnity Claim"). The Indemnitor shall have the right to participate jointly with the Indemnitee in the Indemnitee's defense, settlement or other disposition of any Indemnity Claim. With respect to any Indemnity Claim relating solely to the payment of money damages and which could not result in the Indemnitee becoming subject to injunctive or other equitable relief or otherwise adversely affecting the business of the Indemnitee in any manner, and as to which the Indemnitor shall have acknowledged in writing the obligation to indemnify the Indemnitee hereunder, the Indemnitor shall have the sole right to defend, settle or otherwise dispose of such Indemnity Claim, on such terms as the Indemnitor, in its sole discretion, shall deem appropriate, provided that the Indemnitor shall not enter into an agreement or settlement which requires the Indemnitee to admit to guilt, liability or wrongdoing of any kind and further providing that the Indemnitor shall provide reasonable evidence

of its ability to pay any damages claimed and with respect to any such settlement shall have obtained the written consent of the Indemnitee from the Indemnity Claim. The Indemnitor shall obtain the written consent of the Indemnitee prior to ceasing to defend, settling or otherwise disposing of any Indemnity Claim if as a result thereof the Indemnitee would become subject to injunctive or other equitable relief or the business of the Indemnitee would be adversely affected in any manner,

13. INSURANCE; LIMITATION ON DAMAGES.

13.1. Insurance. Prior to commencing human clinical trials in the United States with the Product, SRM shall, at its own expense, obtain and maintain , (i) product liability insurance providing protection in the amount of at least Three Million Dollars ($3,000,000) in annual aggregate against any claims, suits, losses or damages based upon any alleged defect in, or otherwise caused by, any Products purchased pursuant to this Agreement and (ii) general liability insurance providing protection in the amount of at least Three Million Dollars ($3,000,000) in annual aggregate against any claims, suits, losses or damages based upon any act or alleged activity of a Party pursuant to this Agreement. Upon FDA clearance of the latter of the Product or the SRM Neuroprotection System, SRM shall, at its own expense, obtain and maintain (i) product liability insurance providing protection in the amount of at least Five Million Dollars ($5,000,000) in annual aggregate against any claims, suits, losses or damages based upon any alleged defect in, or otherwise caused by, any Products purchased pursuant to this Agreement and (ii) general liability insurance providing protection in the amount of at least Five Million Dollars ($5,000,000) in annual aggregate against any claims, suits, losses or damages based upon any act or alleged activity of a Party pursuant to this Agreement. When SRM's annual revenue of the Product exceeds Fifty Million Dollars ($50,000,000), SRM shall at its own expense, obtain and maintain (i) product liability insurance providing protection in the amount of at least Ten Million Dollars ($10,000,000) in annual aggregate against any claims, suits, losses or damages based upon any alleged defect in, or otherwise caused by, any Products purchased pursuant to this Agreement and (ii) general liability insurance providing protection in the amount of at least Ten Million Dollars ($10,000,000) in annual aggregate against any claims, suits, losses or damages based upon any act or alleged activity of a Party pursuant to this Agreement. SRM shall maintain insurance as defined above throughout the Term of this Agreement and for a period of time thereafter for three (3) years or the shelf life of the Product, whichever is longer. SRM shall furnish to Cordis upon request and at least annually a Certificate of Insurance evidencing compliance with the provisions of this Section 13.1. The existence of such coverage shall in no way limit a Party's liability or obligations hereunder this Agreement.

13.2. LIMITATION ON DAMAGES. NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR ANY PUNITIVE, EXEMPLARY, MULTIPLIED, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING, BUT NOT LIMITED TO, PERSONAL INJURY AND PROPERTY DAMAGE, LOSS OF PROFITS OR REVENUES, AND EACH PARTY HERBY IRREVOCABLY WAIVES ANY RIGHT TO SEEK SUCH DAMAGES, IN ADDITION, NO PARTY SHALL BE AWARED ANY MULTIPLIER TO ANY AWARD OF ACTUAL DAMAGES, EXCEPT AS REQUIRED BY STATUTE,

14. MISCELLANEOUS.

14.1. Incorporation of License Agreement. The applicable provisions of the License Agreement, including, without limitation, Articles 1 (Definitions), 2 (License Grants), 5 (Ownership and Prosecution of Patent Rights), 6 (Cooperation between Parties), 8 (Commercialization; Use of Names), 9 (Confidentiality), 10 (Right of First Negotiation), 11 (Transferability) (excluding Section 11.6), 12 (Termination), 13 (Dispute Resolution), and 14 (General excluding Section 14.1 (Integrated Agreement)) are hereby incorporated into this Agreement by reference and are binding on the Parties with respect to this Agreement.

14.2. Entire Agreement. This Agreement, together with the License Agreement between the Parties, constitutes the complete and exclusive statement of the agreement between the Parties, and supersedes all prior agreements, proposals, negotiations and communications between the Parties, both oral and written, regarding the subject matter hereof. The language and terms of this Agreement and the License Agreement are intended to complement, supplement and be consistent with one another. In case there is a conflict between any of the terms of the two Agreements, the language of the License Agreement shall control.

IN WITNESS WHEREOF, the Parties have executed this Agreement by their duly authorized representatives, to be effective as of the Effective Date.

CORDIS CORPORATION		**SILK ROAD MEDICAL, INC.**	
By:	/s/ Jose A. Gonzalez	By:	/s/ William Worthen
Print:	Jose A. Gonzalez	Print:	William Worthen
Title:	VP OPS	Title:	President & Chief Executive Officer
Date:	10/21/2011	Date:	9/21/2011

Exhibit 1: Design Inputs

The design will include a shortened working length of the PRECISE® Carotid Stent System for transcervical implantation of the PRECISE® carotid stent, The design shall refer exclusively to a stent delivery system with a working length of 65 centimeters, The design will include validated packaging, package labeling, and sterilization, The design will include diameters and lengths as outlined in the table following:

Stent Length(mm)	Stent Diameter(mm)
20	5
20	6
20	7
20	8
20	9
20	10
30	5
30	6
30	7
30	8
30	9
30	10
40	5
40	6
40	7
40	8
40	9
40	10

Exhibit 2: Design and Development Plan

SECTION 1 - PROJECT SCOPE AND APPROACHES

PRODUCT DESCRIPTION

New design consists of a shortened working length of the Precise Carotid Stent System. Application and clinical indication is determined by SRM,

PROJECT SCOPE

Under the scope of this project Cordis will create and release 18 new Carotid Stent Delivery System catalogs - 65cm length. These include combinations of six (6) stent diameters (5, 6, 7, 8, 9 and 10 mm) and three stent lengths (20mm, 30mm and 40 mm),

Stent Length(mm)	Stent Diameter(mm)
20	5
20	6
20	7
20	8
20	9
20	10
30	5
30	6
30	7
30	8
30	9
30	10
40	5
40	6
40	7
40	8
40	9
40	10

Product tray will be qualified in as part of development of the product.

MANUFACTURING SITE

New Carotid Stent Delivery System catalogs with 65cm length assembly and packaging will be performed at Cordis de Mexico, Sterilization will be performed at Steris Isomedix Inc. sterilization facilities in El Paso, Texas,

FUNCTIONAL REPRESENTATIVES

Team Member	Roles	Responsibilities
OETS (Sustaining) / Operations		
James Merrit	OETS (Sustaining) Director	Overall Project Leadership.
Victor Baylon	OETS (Sustaining) Manager	Project Manager. Provide input for this D&D plan.
Laura Gisela Rico	Lead) ETS (Sustaining) Engineer (Project Leader)	Project leader. Plan and execute key activities as per this D&D plan.
Laura C. Irigoyen	OETS (Sustaining) Engineer	Provide project support.
Fabio Diaz	OETS (Sustaining) Engineer	Provide project support,
Iris Castillo	OETS (Sust/Contractor) - Packaging Engineer	Provide project support in the area of packaging. Plan and execute key packaging related activities as per this D&D plan.
Antolin Salazar	OETS (Sustaining) Technician	Provide project support.
Victor Baylon	Packaging Manager	Overall Packaging Leadership
Yipsi Bowley	OETS (Sustaining) Engineer R&D Manager	Provide Design Control support. Provide input for this D&D plan.
R&D		
Scott Jones	R&D Engineer	Provide support for planning & execution of Design Verification/Validation as per this D&D plan.
Quality Assurance		
Nancy Amaya	QA Director	Overall QA leadership
Hector Medrano	QA Manager	QA project management. Provide input into this D&D plan.
Adriana Gamez	PQS/FAL Manager	Provide support/direction for this D&D Plan
Sergio Muftoz	QA Engineer	QA Support
Operations		
Karla Perea	Mfg Manager	Operations Management,
Juan Carlos Gallegos	Mfg Eng Ops	Provide project support.
Ignacio Arroniz	Packaging Engineer	Provide project support in the area of packaging, Plan and execute packaging related activities as per this D&D plan,
Cross-Functional Support		
Sam Mirza	Regulatory Affairs Manager	Overall Regulatory Affairs project management, provide input for Regulatory Approach
Independent Peers		
Shawn Kallivayalil	R&D Mgr	Serve as Independent Peer for Technical Design Review(s) as per this D&D Plan
Araceli Muiloz	QA Engineer	Serve as Independent Peer for Technical Design Review(s) as per this D&D Plan
Carlos Hem	OPS Engineer	Serve as Independent Peer for Technical Design Review(s) as per this D&D Plan

Design & Development APPROACHES

Marketing

Marketing Objectives
Responsibility of SRM.

Volume Expectations
Demand expected is according to SRM Planning, current forecast as follows:

unit forecast as of 2/2/11							
	2011	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
Scenario 1	[***]	[***]	[***]	[***]	[***]	[***]	[***]
Scenario 2	[***]	[***]	[***]	[***]	[***]	[***]	[***]

Note: Forecast may be revised in a subsequent revision of this Design and Development Plan.

Pricing Strategy
Pricing for final customer is managed by SRM.

Branding Name Strategy
Branding name strategy for 18 new Carotid Stent Delivery System catalogs - 65cm length will be selected by SRM.

Initial Sales Forecast and ISS Requirements
[*********] units will be manufactured as the Initial Shelf Stock (ISS) requirement for product launch. Manufacture and delivery of ISS is not included in Development Fees, SRM shall place a written purchase order for the ISS, the price of which is [********] per unit.

Desired Clinical Indications
To be determined by SRM (not part of this plan)

Desired Performance Claims
To be determined by SRM (not part of this plan)

Key Marketing Activities
To be determined by SRM (not part of this plan)

Regulatory

Distribution Region
To be determined by SRM (not part of this plan)
Regulatory Classification
To be determined by SRM (not part of this plan)

Submission Type
To be determined by SRM (not part of this plan)

Regulatory Pathway
To be determined by SRM (not part of this plan)

Promotional Claims
To be determined by SRM (not part of this plan)

Import/Export Requirements:
To be determined by SRM (not part of this plan)

Testing Requirements
As determined by Cordis, Cordis will leverage the TDI's corresponding to the PMA approved PRECISE products marketed by Cordis, except those that are specific to the new length (65 cm), which will be performed for the new length as set forth in the section Product Design Verification of this Design and Development Plan. Testing related to simulated use must be responsibility of SRM; since the clinical application of this product will be developed and validated by SRM.

Operations Planning

Carotid Stent Delivery System catalogs with 65cm length validation, such activities specified in this agreement will be managed per Cordis Quality System,

Design Reviews

The following Technical Design Reviews (TDR) will be completed by Cordis for the carotid stent delivery system catalogs with 65cm length project:

- Design Review I: Combined Design Input, Concept Selection and Planning & Design Output Technical Design Review (Prototypes testing completed)
- Design Review II: Combined Verification/Validation and Design and Technology Transfer Technical Design Review (DV/PPQ Report approved)

Evidence of completion of Design Review I and Design Review II will be document as required per Cordis Quality System,

A Clinical Readiness Design Review is responsibility of SRM and will not be documented in the Cordis Quality System,

Design History File

A new electronic DHF will be created by Cordis for the 18 new Carotid Stent Delivery System catalogs - 65cm length project to allow for development and release of new documentation for these codes.

Risk Assessment and Mitigation

SRM is responsible for the risk management plan documentation required for 18 new Carotid Stent Delivery System catalogs - 65cm length due to new application (transcervical approach).

Concept Evaluation and Selection — Product & Package

Concept Generation
Cordis will manufacture the product and SRM will brand the product.

Prototyping Activities
Prototypes will be run by Cordis as a pre-requisite of the Design Verification/Product Performance Qualification. A summary of these evaluations, including reliability analysis of the testing done will be captured in an engineering report written by Cordis and provided to SRM.

Design Assessments
There is neither animal testing nor customer use feedback from Cordis for the 18 new Carotid Stent Delivery System catalogs - 65cm length. Clinical trial is responsibility of SRM,

Test Method Development
Existing Cordis Test Methods will be used by Cordis to assess the change in the length of the 18 new Carotid Stent Delivery System catalogs - 65cm. If any test method is not applicable based on the SRM intended use, technical design input must be addressed by SRM,

Design Characterization

Design Characterization Activities
A tolerance stack up analysis will be done by Cordis to determine lengths for the 18 new Carotid Stent Delivery System catalogs - 65cm length components, Outer Member, Support Member, and their components. This stack up analysis will be used to determine dimensions for the components and for the packaging.

Key design elements not being modified or impacted as a result of the 65cm product include the stent, SDS, packaging (except product tray), as existing components will be utilized and there is no change or impact at the manufacturing/process level. Changes will be done only to remove the Cordis and J&J branding.

Anticipated Design Iterations and Contingencies
There are no planned design iterations and contingencies.

Product Design Verification

Technical Design Inputs (TDIs) affected by the change on the length (65cm) will be tested by Cordis for the 18 new SRM Carotid Stent Delivery System catalogs - 65cm length project and will be based

on length modification and size bracketing strategy., The only TDIs that Cordis will test are as follows:

- Usable length
- Exit port location
- MB Positioning
- Stent pre-deployment
- OM stroke length

- OM hub pull strength
- OM Proximal OM Body elongation pull strength
- Wire lumen/Proximal wire/PET Sleeve pull strength
- SM distal hypotube/proximal wire pull strength
- Coil Stop pull strength
- Labeling content

For the avoidance of doubt, SRM will test TDIs for trackability and deployment force. Cordis will provide to SRM the following information (i) test method parameters and acceptance criteria Cordis uses to test Cordis' PRECISE® Carotid Stent System for trackability and deployment force and which Cordis determines are applicable to the Product, and (ii) sample sizes Cordis uses to test Cordis' PRECISE® Carotid Stent System for trackability and deployment force; so that SRM can develop and validate its own test methods for trackability and deployment force. Manufacture units for trackability and deployment force testing are included in the scope of the Development Fees up to the maximum number of units set forth in Exhibit 3 of the Supply Agreement.

For the avoidance of doubt, TDIs that will not be tested by Cordis for the 18 new Carotid Stent Delivery System catalogs - 65cm length project are:

- Crossing profile
- Luer fitting
- Air embolization
- Ability to aspirate
- Wire lumen ID
- SDS Tip TD
- Deployment accuracy
- OM hub/hemovalve joint torque
- Pod/body fuse joint pull strength & elongation
- Brite tip/pod fuse joint strength
- Hub/hypotube pull strength
- Hub/proximal wire pull strength
- Wire lumen tip pull strength

Design Verification (DV) & Product Performance Qualification (PPQ) for the 18 new Carotid Stent Delivery System catalogs - 65cm length will be combined and will address qualification of the product. DV/PPQ units will be subjected to three EtO sterilization cycles.

Stability is not required as this product does not contain drug.

Packaging Design Verification

Design Verification related to packaging are the impacted TDI's related to the tray only. The only TDIs associated with the tray that Cordis will tested as part of the Design Verification for packaging are:

- Product Migration
- Product Visual Inspection
- Packaging Integrity Test (Visual Inspection)
- Package Challenge Test (Bubble Test)
- Dye Penetration Test
- Seal Pull Test

DV & PPQ for the packaging will be combined. DV/PPQ units will be subjected to three EtO sterilization cycles.

No aging testing will be performed by Cordis for the 18 new Carotid Stent Delivery System catalogs - 65cm length project.

Quality

Quality is addressed through Cordis Quality System.

Design Validation — Product/Package

Product

The Carotid Stent Delivery System catalogs with 65cm length will be manufactured for SRM.

Design Validation for SRM intended use of the product is responsibility of SRM.

Product labeling dimensions are:

- Outer label: 5.625" x 9.625"
- Inner label: 5.25" x 8.825"

SRM to provide label content to Cordis, Fasson Trans-Therm 2 material to be used by Cordis. No aging testing will be performed by Cordis for the 18 new Carotid Stent Delivery System catalogs -65cm length labeling.

SRM to provide to Cordis artwork and content for both instructions for use and stent implant card for the DV/PPQ. For the avoidance of doubt, SRM is solely responsible for ensuring that the artwork and content of the instructions for use and stent implant card meet the requirements of all laws and regulations.

Cordis will purchase the materials for the instructions for use and stent implant card, which will fabricated by using the existing qualified Cordis specification (dimensions, materials, weight.)

No clinical trial will be done by Cordis to support the 18 new Carotid Stent Delivery System catalogs - 65cm length.

Process Validation

Project approach to Process Validation will be done according to Cordis Quality System,

Sterilization

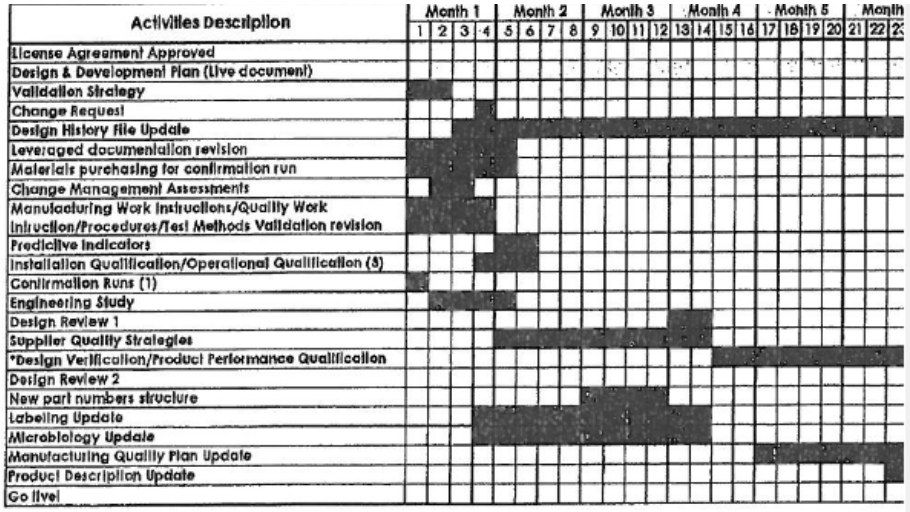
The Sterilization strategy is to be 3X EtO capable, which will be the same as current marketed devices (self expandable stents), Previous Cordis validations will be leveraged for sterilization.

DV/PPQ units for both product and its packaging for the 18 new Carotid Stent Delivery System catalogs - 65cm length will be subjected to three EtO sterilization cycles,

Complaint .11andlinz/FAL

See License Agreement for Complaint Handling and FAL.

SECTION 2 — DESIGN & DEVELOPMENT SCHEDULE



SECTION 3 - PROJECT DELIVERABLES

The documentation set forth in 1 and 2 immediately below are the only deliverables of Cordis to SRM for the 18 new Carotid Stent Delivery System catalogs - 65cm length project:

1. Carotid stent delivery system (femoral access approach) documentation that will be leveraged by Cordis:

    a, Sterility Assurance Assessment
    b. Product Description
    c. Operations Strategy and Manufacturing Readiness (manufacturing process documentation)
    d. Biocompatibility (Nan and Summary Report)
    e. Supplier Qualification (Including: Specification, Strategy, Checklist, and Agreement. New SQS will be done ONLY for affected components)
    f. Environmental Impact Assessment
    g, Shelf Life Test (Protocols/Reports) to support 24 month shelf life
    h. Software Validation (Protocols/Reports)
    i. Physical Test Methods (Validation Protocols/Reports)
    j. Essential Requirement Checklist
    k. DFMEA, PFMEA, MQP, AFMEA (for application elements not impacted by the length change or SRM intended use.)

2 Documents that will be created by Cordis for SRM:

    a. Design Review I and Design Review II
    b. Design Summary (Related to length change)
    c. Product Configuration (Drawings, Specifications, etc., to reflect length change)
    d. Process Validation Strategy (Validation Change Management Assessment)
    e. Supplier Qualification (Process Strategy, Checklist for affected components)
    f. Installation Qualification/Operational Qualification (Protocols/Reports as required)
    g. Combined Design Verification /Product Performance Qualification (Protocols/Reports)
    h. Product Configuration (Bill of Materials, Route Sheets for 18 new Carotid Stent Delivery System catalogs - 65cm length)
    i. Sterility Assessment

3 For the avoidance of doubt, documents that are the sole responsibility of SRM and are not part of this Design and Development Plan:

    a. Market Opportunity Assessment
    b. Technology and Capabilities Assessment
    c. Design Change Record
    d. Prototype Evaluation (Protocol/Report — Animal)
    e. Prototype Evaluation (Protocol/Report — Bench)

f. Prototype Evaluation Summary Report
g. Global Market Plan
h. Pre-Clinical Study (Protocol/Report)
i. Clinical (Study Plan, Release Engineering Test Protocol/Report, Literature Review, Product Release Authorization Clinical Product)
j. Regional Launch Plan
k. Declaration of Conformity
1. Market Launch Preparation
m. Legal Clearance
n. Clinical Risk Management Plan
o. Trackability TDI
p. Deployment TDI

4. For the avoidance of doubt, all documents relative to the intended use, are the sole responsibility of SRM, and are not part of this Design and Development Plan. These documents include but are not limited to the following:

a. Hazard List and AFMEA
b. Design Validation (Protocol/Report)
c. Instructions for Use
d. Stent Implant Card

SECTION 4 — Glossary

Term	Definition
Confirmation run	A single run of a process under normal production conditions.
IQ/OQ	Installation Qualification/Output Qualification, which is used synonymously with SWIP, Software Installation Protocol.
Product Performance Qualification (PPQ)	Documented verification that the equipment and ancillary systems, under normal production conditions, can consistently produce finished product that meets all effective specifications. This term is also referred to in industry as PV (Product Validation).
Protocol	A pre-approved, written plan stating how validation testing will be conducted, including test parameters, product characteristics, production equipment, and decision points on what constitutes acceptable results,
Validation	Confirmation by examination and provision of objective evidence that provides a high degree of assurance that a specific process, method, or system will consistently produce a result meeting predetermined acceptance criteria.

Term	Definition
Validation Strategy (VS)	A project-specific document that establishes the validation approach, requirements and schedule of validation activities,
Design and Development Plan	A plan that describes the design and development activities and defines responsibility for implementation. It also identifies and describes the interfaces with different groups or activities that provide, or result in, input to the design and development process.
Design Review — FDA § 820.3(h)	Design review means a documented, comprehensive, systematic examination of a design to evaluate the adequacy of the design requirements, to evaluate the capability of the design to meet these requirements, and to identify problems.
Design Validation — FDA § 820,3(z)	Design Validation means establishing by objective evidence that device specifications conform with user needs and intended use(s).
Design Verification	Confirmation by examination and provision of objective evidence that the design output has fulfilled requirements set out in the Technical Design Input.
Technical Design Inputs (TDI)	The functional, performance, and interface requirements of a product, translated from the User Requirement to an engineering level of detail that can be verified. The requirements that form the Design Input establish a basis for performing subsequent design tasks and validating the design,
Specification — FDA § 820.3(y)	Specification means any requirement with which a product, process, service, or other activity must conform.
Real Time Aging	Design verification after the product has been exposed to defined conditions for a period of time equal to or greater than the labeled shelf life. Real time aging is a confirmation of an accelerated aging study and is required if accelerated aging is required.
Accelerated aging	Design verification after the product has been exposed to a defined temperature and time in order to simulate a defined shelf life.
Design Change	A Change to fain, fit, function, identity, quality, strength, or purity of product or process Design,
Design Change Control	Procedures for the identification, documentation, verification or where appropriate validation, review, and approval of design changes before their implementation.
Design Change Record	A report summarizing the history of Design Changes and their assessment.
Design History File - ISO/TR 14969:2004(E)	A compilation of records, which describes and records the history of design activity.
Design History File — FDA § 820.3(e)	Design history file (DHF) means a compilation of records, which describes the design history of a finished device.

Term	Definition
Final Assembly	Final assembly is defined as an assembly level at which the product or the device (or accessory to the device) is completed and suitable for use or capable of functioning, whether or not is packaged, labeled, or sterilized,
Component	Any raw material, subassembly, or part, which is intended to be included as part of the finished device.
Intended Use	Describes how the device will be used and who the end users will be. This shall include the indicated full range of use for the product.
Leverage	When a project team utilizes information (components, specifications, deliverables, etc.) from a preexisting project or qualified product.
Product	Refers to medical devices, as well as, medical drug/device combinations, Includes components, packaging, manufacturing materials, in-process product, finished product, and returned product.
Product Configuration (PC)	Product Configuration objects describe the physical characteristics of a product. PC object types in cPDM include Specifications, Parts, Routers, Item Master Information, Branch Item Master etc,
Product Description (PD)	Matrix of Design Inputs and Outputs including references to additional items such as design verification and validation activities, and risk class.
Unqualified (UQ)	The state, referring to a PC document, that indicates qualification requirements are incomplete, per CFM 13001 and CFM 10369616.
Qualified (Q)	The state, referring to a PC document that indicates successful completion of all qualification requirements, per CFM 13001 and CFM 10369616,
Supplier	An establishment with whom Cordis has a relationship for the procurement of goods or services to the organization.
Failure Mode and Effects Analysis (FMEA)	A procedure by which each potential Failure Mode or fault of a system is analyzed to determine the consequences of effects thereof on the system, to classify each potential Failure Mode according to its severity, and to recommend actions to eliminate, or compensate for, unacceptable effects.
Sterility Assurance Level (SAL)	Probability of a viable microorganism being present on a product after sterilization. SAL is normally expressed as 10-n. Cordis products are sterilized with an SAL of 10-6.
Sterilization	Validated process used to render a product free from viable microorganisms.
Bioburden	Populations of viable organisms on a product and/or package.

Exhibit 3: Product Samples for SRM In-house Testing

Project Phase	**Product Description**	**Qty**
Confirmation Run	Pre design verification units	[*******]
Design Verification	Final Product configuration with full traceability packaged and sterile	[*******]

In addition to the [*****] units for Confirmation Run and the [*****] units for Design Verification, Cordis will provide to SRM an additional [*****] units to be used by SRM for SRM trackability and deployment force testing and studies. Any number of units greater than the [*****] set forth in this Exhibit will be paid for by SRM at price of [*****] per unit.

Exhibit 4: Development Plan Payment Schedule and Milestones

Payment	Milestone	Payment by SRM to Cordis	Completion Date
1	Agreement Execution	[**********]	
2	Design Review I	[**********]	Within 4 months of the Effective Date of this Agreement
3	Design Review II	[**********]	Within 7 months of the Effective Date of this Agreement
	Total	[**********]	

The total fees payable by SRM for Development Services is set forth in this Exhibit 4 under the row entitled “Total,” and such Total includes the costs for all components and materials for Cordis to perform the Development Services in accordance with this Agreement as set forth on Exhibits 1-3.

Exhibit 5: Commercial Supply of Product

The Parties agree that the following terms shall govern the commercial supply of Product by Cordis to SRM:

1. **Forecasts: Orders**. Six (6) months prior to an anticipated regulatory approval or clearance, SRM shall provide Cordis with an initial non-binding forecast of the quantities of Products estimated to be required during the initial twelve (12) month period after such approval or clearance. Thereafter, SRM will provide to Cordis each February 1, May 1, August 1, and November 1 an updated forecast for the following (12) twelve month period commencing two (2) months from the applicable date ("Updated Forecast"). Each Updated Forecast shall be binding for (i) the first month by part number one hundred percent (100%) as to mix and volumes, (ii) the second month by part number ninety percent (90%) as to mix and volumes (iii) the third month by part number seventy five percent (75%) as to mix and volumes. The first three months of an Updated Forecast which are binding is a "Binding Quarter." SRM's orders for Product shall be made pursuant to a written purchase order specifying the desired quantity and configuration of Product, and subject to Section 2 of this Exhibit, will provide for shipment in accordance with reasonable delivery schedules and lead times as may be agreed upon from time to time by SRM and Cordis. In addition, if requested by Cordis, SRM will participate in Cordis' Sales and Operations Planning Process (S&OP) to review SRM's forecasts, orders, and market demand changes.

2. **Acceptance of Orders**. All purchase orders shall be delivered by SRM to Cordis in writing to Cordis de Mexico, S.A. de C.V. do CEVA, 950 LomaVerde, El Paso, TX 79936, Attention: Cordis de Mexico, S.A. de C.V. Plant Manager. SRM shall place all purchase orders to Cordis a minimum of eight (8) weeks prior to the desired date of delivery. SRM shall place all purchase orders for Product in a Complete Lot. SRM shall place no more than one (1) purchase order each month. SRM agrees that Cordis may deliver quantities of Product in quantities +1- 10% of the quantities set forth in the SRM purchase orders. SRM agrees that Cordis is not required to deliver Product in excess of one-hundred and fifty percent (150%) of the Updated Forecast for any month which is binding, provided that in total Cordis is not obligated to provide in excess of one hundred and twenty five percent (125%) of the Updated Forecast for any Binding Quarter. In the event Cordis is unable to accept a purchase order, Cordis will promptly notify SRM as to why it cannot accept such purchase order. In the event of any inconsistency between this Agreement and a purchase order, the terms of this Agreement shall control. For clarity, any additional or inconsistent terms in any purchase order, acknowledgement or other form are hereby excluded. "Complete Lot" shall mean a minimum quantity of [******] units of one Product code,

3. **Cancellation**: Rescheduling of Delivery, SRM or its designees may cancel an outstanding purchase order by notifying Cordis in writing; provided that SRM is responsible for payment of the inventory as set forth in Section 11.6 of this Agreement. SRM may at any time reschedule the shipment date for any Products that have not been

shipped to SRM, provided that SRM pays a reasonable restocking fee to be mutually agreed upon in writing associated with the storage of such Products.

4. **Delivery**. Cordis shall ship the Products to the destination set forth in the purchase order. All shipments shall be delivered FCA (lncotenns 2010) from Cordis' Facility to the location specified by SRM in the purchase order. The carrier shall be selected by mutual agreement between Cordis and SRM, Concurrent with the shipment of each order of Product, Cordis shall deliver to SRM a Router corresponding to such shipment in along with a Certificate of Conformity stating that the shipment complies with the Specification.

"Router" shall be limited to the following information: process flows, component traceability, inspection results (pass/fail), statistical process control results (monitoring of the critical parameters and/or defects) (pass/fail), quality assurance audit results (inspections made on the Product during manufacturing) (pass/fail), label inspection results (pass/fail), pyrogen test results (pass/fail), route sheet review (pass/fail), sterilization flow, copy of the first and last label used in the lot, label reconciliation results, set-up parameters and testing results (equipment set-up, process parameters information and results of the testing performed to the Product during manufacturing).

5. **Packaging**. Products will be packaged, labeled, sterilized, and released by Cordis to SRM in accordance with (i) the Specifications and (ii) Section 6.8 and Section 8.2 of the License Agreement. Products shall be shipped to SRM in containers as agreed to by Cordis and SRM prior to the first shipment of Product. Each such container shall be individually labeled with a description of its contents, including the manufacturer name, manufacturer lot number, quantity of Products, use by date, and date of manufacture,

Exhibit 6: Price for Supply of Product

[*******] per unit of Product

PMA Modification Determination Form

Date:

Name of Modified Device:

PMA Number:

Description of the Proposed Modification (use additional space as necessary):

DCR/CR Reference Number (cite the corresponding DCR/CR #, if available):

Reason for the Modification (use additional space as necessary):

Based on the above information and in accordance with CFM 20076, the conclusion is:

- ☐ PMA
- ☐ PMA Amendment
- ☐ 180-Day PMA Supplement
- ☐ Panel Track Supplement
- ☐ Panel Track Supplement
- ☐ Manufacturing site Change Supplement
- ☐ Real Time Supplement
- ☐ Special PMA Supplement – Changes Being Effected
- ☐ 30-Day Notification
- ☐ Periodic/Annual Report
- ☐ Documentation

Other, specify: _____

Concurrence:

_____
RA Representative, date

_____
Project Leader, date

_____
Other (list title), date (if applicable)
RA Director (or designee), date (if applicable)

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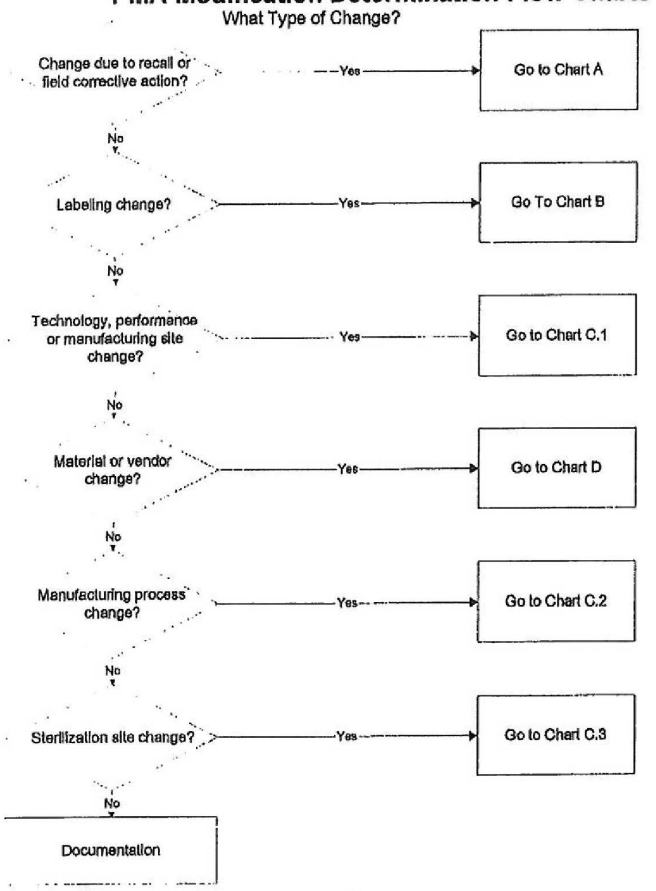
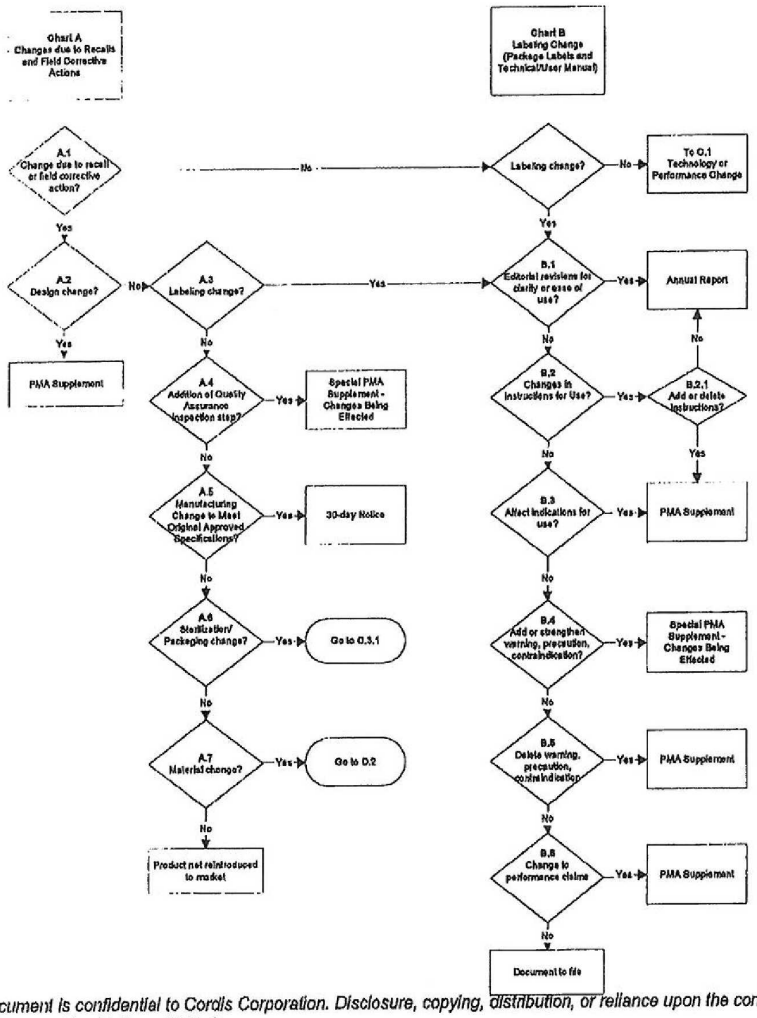
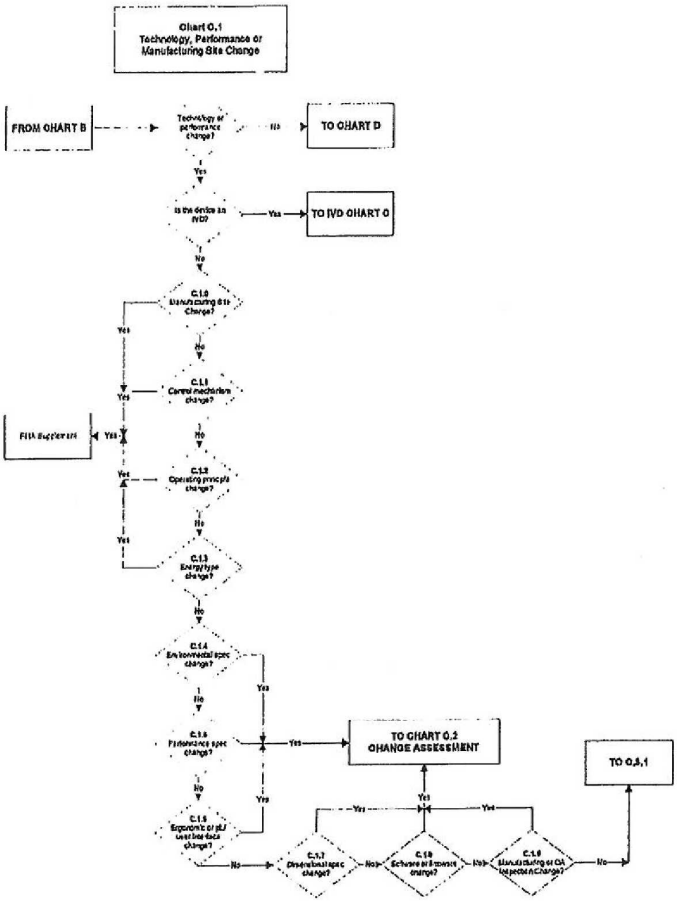
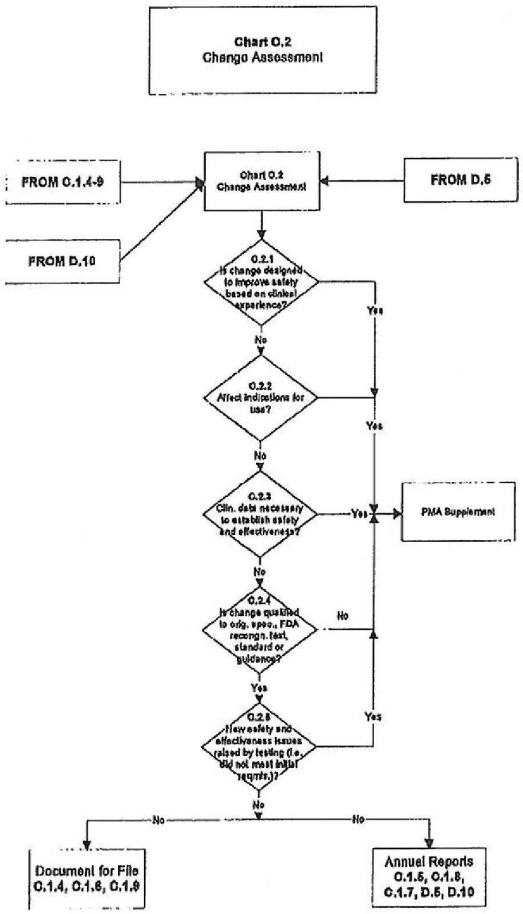
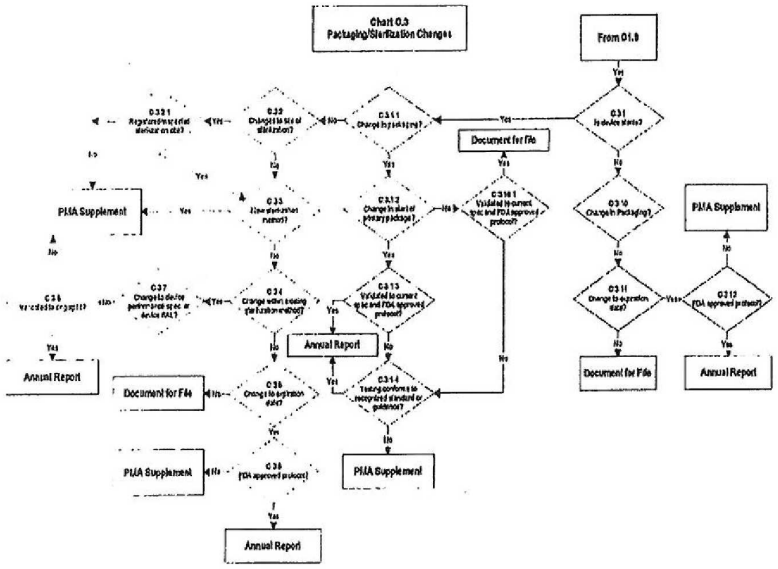
PMA Modification Determination Flow Charts

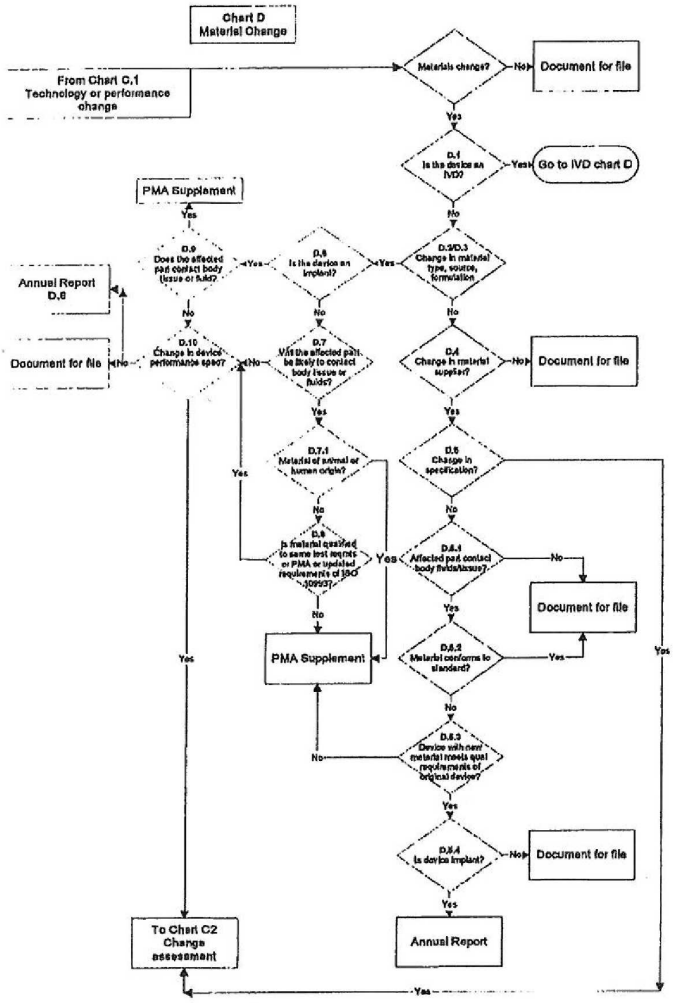


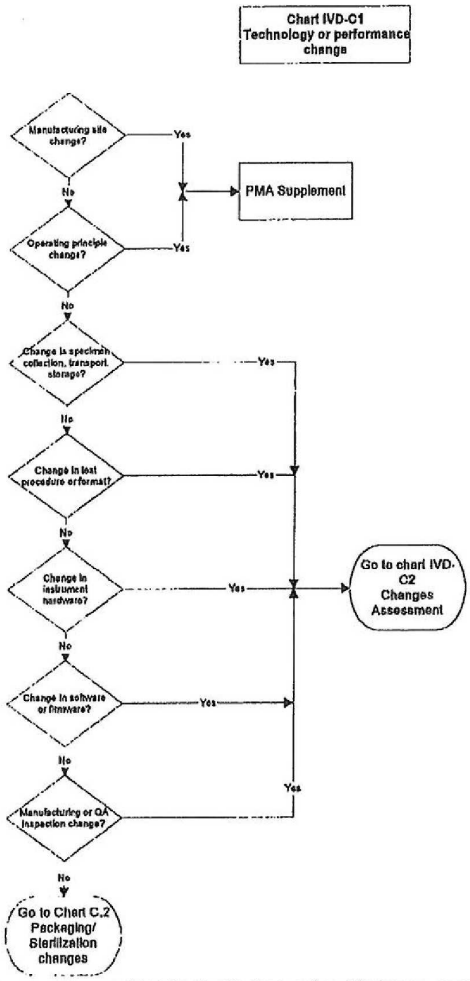


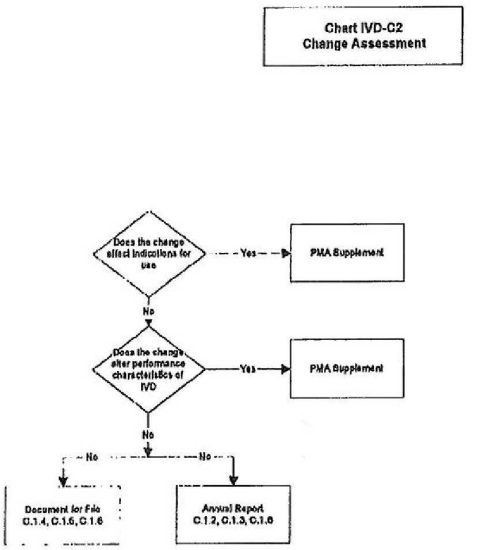












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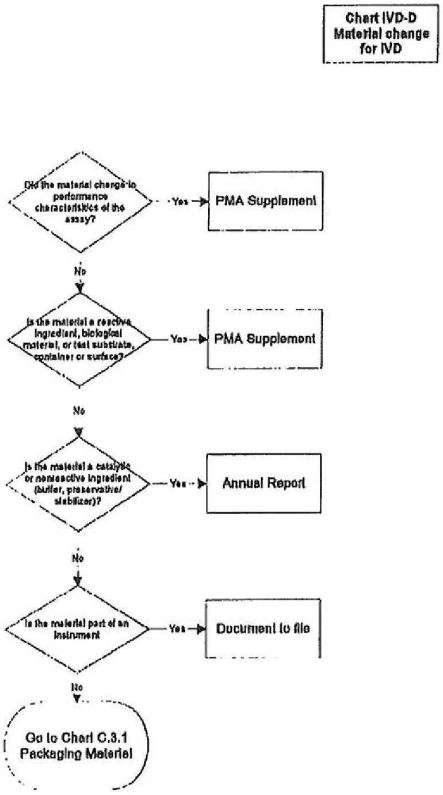

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OUS Medical Device Modification Determination Guide

Purpose

The purpose of this document is to describe the Cordis procedure regarding the assessment of regulatory changes to Medical Device products distributed OUS. This document provides general guidelines to Regulatory Affairs personnel on evaluating changes for OUS products.

Note: Regulatory affairs assessments shall be documented per CFM 10403670 (Regulatory Affairs Assessment).

Scope

The scope of this document applies to all Cordis sites.

Definitions

Term	Definition
QMS	Quality Management System (Documented via PLM or in design history file)
Notification	The Notified Body is notified in writing of the proposed change referencing all supportive protocols and reports. The proposed change can be implemented without BSI's approval.
Design Dossier (DD)	Amendment for substantial or significant changes to an approved CE marked device are reported to BSI as an amendment to the design dossier. The proposed change can only be implemented after receiving approval from BSI
EU	European Union
JP	Japan
AU	Australia

Responsibilities

Position	Responsibility
Regulatory Affairs Representative	The RA representative shall assess regulatory changes following the recommended decision flow-charts included in this CFG. All regulatory affairs assessments shall be documented per CFM 10403670.

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References

External References:
N/A (Not Applicable)

Internal Documents:
- CFM 10403670: Regulatory Affairs Assessment

Subordinate Documents:
N/A (Not Applicable)

Requirements/ Procedure

The flow charts included in this CFG are to be used as a guide for assessing changes to Medical Device products distributed OUS. The below flow-chart (Main flow-chart) references the relevant flow-charts to be used for the change being assessed.

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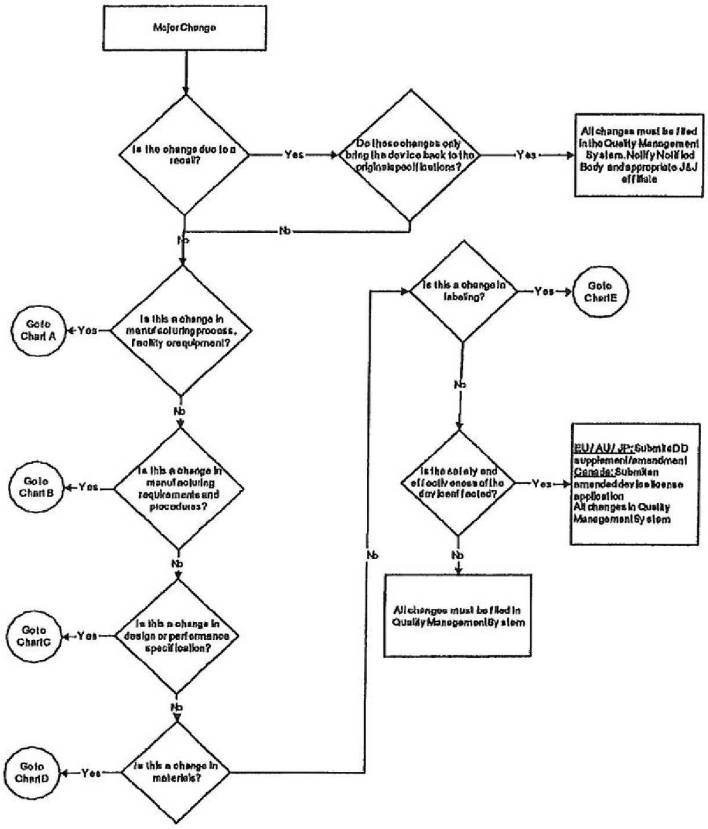
Main Flow Chart



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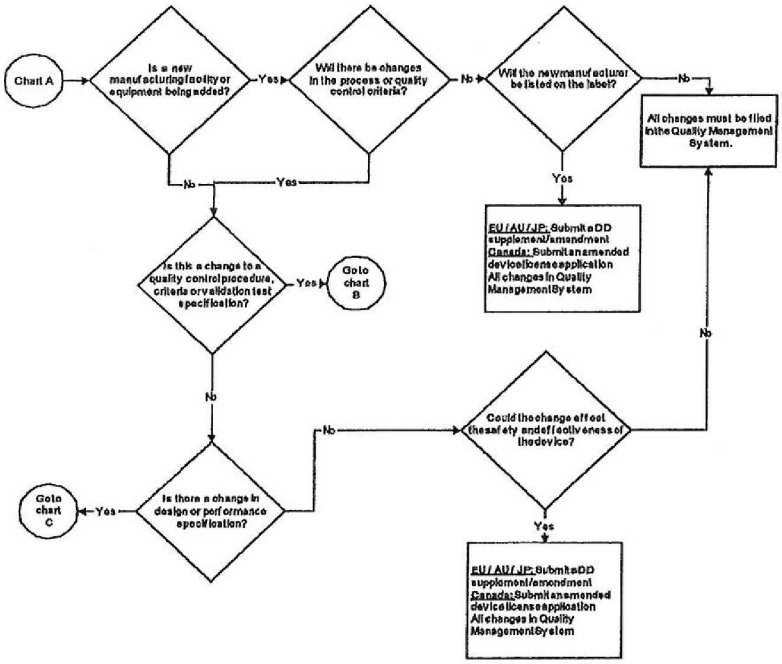
Flowchart A: Changes in Manufacturing Process, Facility or Equipment



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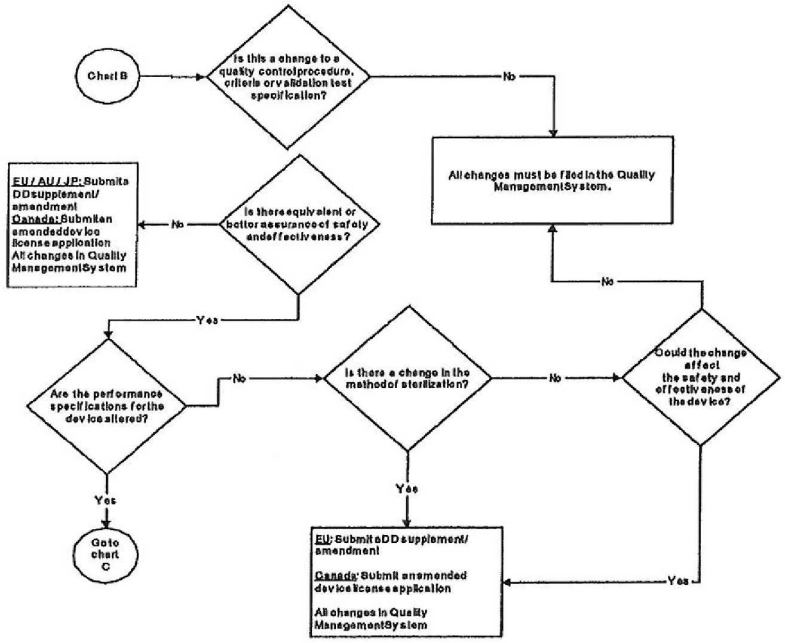
Flowchart B: Changes in Manufacturing Quality Control Procedures



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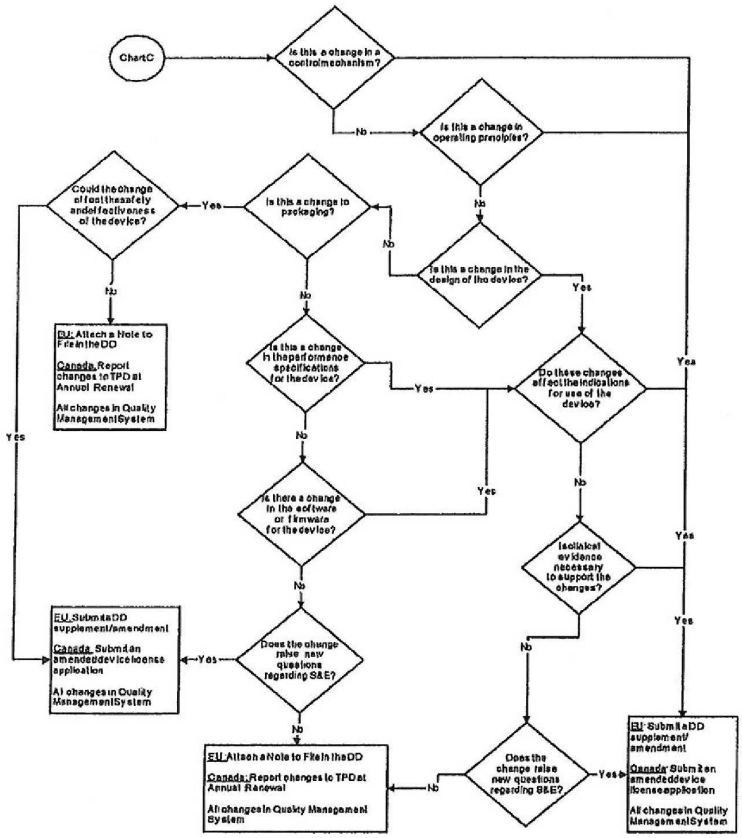
Flowchart C: Changes in Design or Performance Specifications



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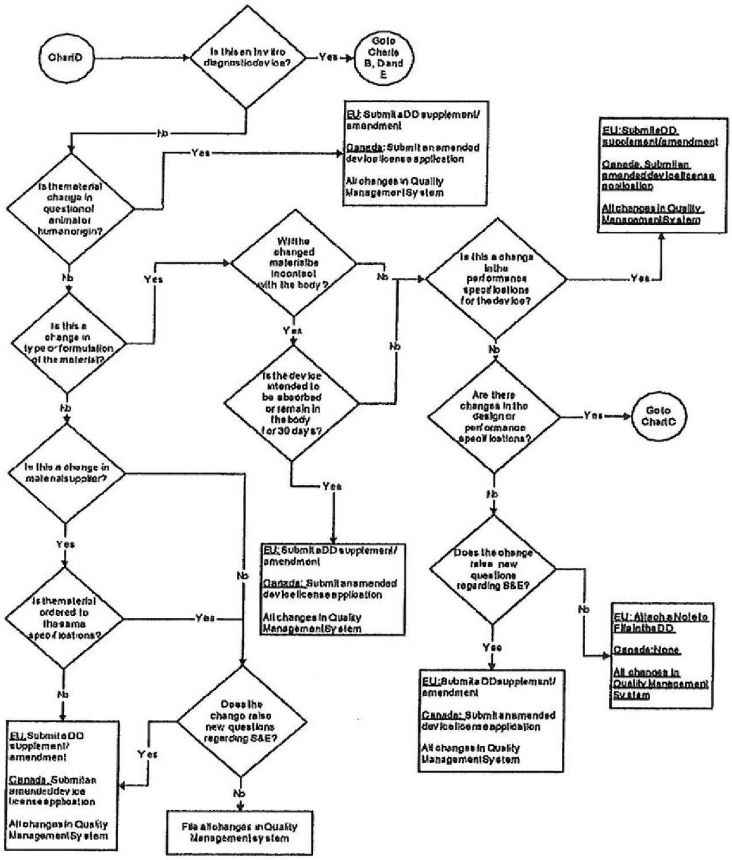
Flowchart D: Changes in Materials



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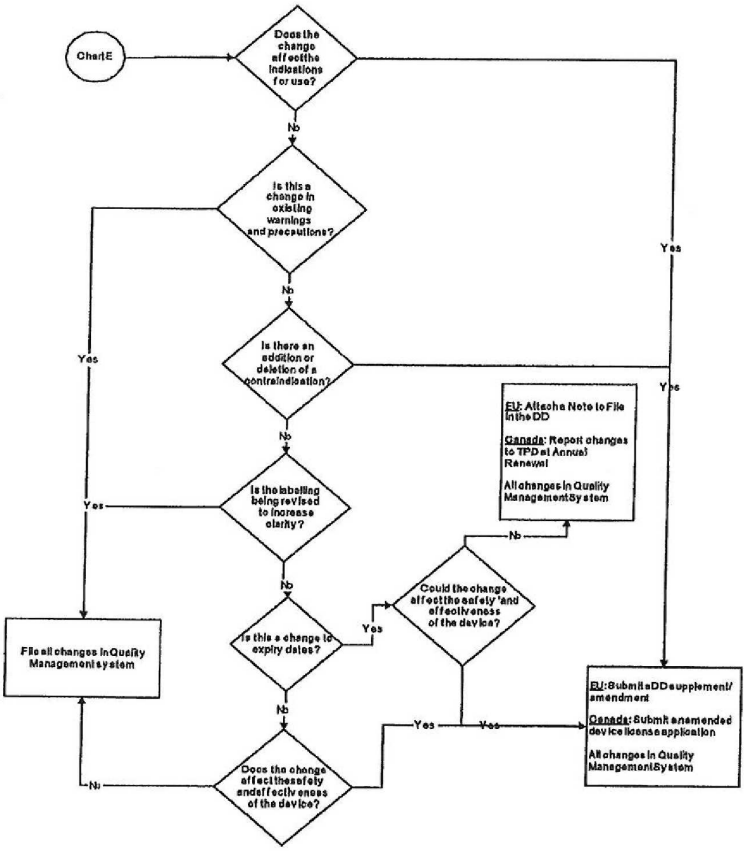
Flowchart E: Changes in Labeling



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AMENDMENT

Silk Road Medical, Inc. ("SRM") and Cordis Corporation ("Cordis" and together with SRM, the "Parties") are Parties to a Supply Agreement ("Supply Agreement") dated October 21, 2011 ("Supply Agreement Effective Date"), for Cordis to perform development, manufacturing and supply services to SRM for a stent delivery system per the terms set forth therein.

For good and valuable consideration, the receipt of which is duly acknowledged, the Parties hereby agree that the design review completion dates set forth in Exhibit 4 of the Supply Agreement shall now be amended as follows:

(i) The Design Review I completion date is no later than five (5) months from the Supply Agreement Effective Date; and

(ii) The Design Review a completion date is no later than eight (8) months of the Supply Agreement Effective Date.

All other terms of the Supply Agreement shall remain in full force and effect without amendment.

IN WITNESS WHEREOF, the Parties have executed this Amendment by their duly authorized representatives, to be effective .as of the latest date set forth below.

CORDIS CORPORATION		**SILK ROAD MEDICAL, INC.**	
By:	/s/ Jose A. Gonzalez	By:	/s/ William Worthen
Print:	Jose A. Gonzalez	Print:	William Worthen
Title:	WW V.P. OPS	Title:	President & Chief Executive Officer
Date:	3/7/2012	Date:	3/12/2012

SECOND AMENDMENT TO
SUPPLY AGREEMENT

THIS SECOND AMENDMENT TO SUPPLY AGREEMENT (this "Second Amendment") is made and entered into as of the last date of signature below (the "Second Amendment Effective Date"), by and between Silk Road Medical, Inc. ("SRM") and Cordis Corporation ("Cordis"), with reference to the following:

A. SRM and Cordis are parties to that certain Supply Agreement dated as of October 21, 2011, as amended as of March 12, 2012 (collectively, the "Agreement"), providing for Cordis to perform development, manufacturing and supply services for SRM for a stent delivery system per the terms set forth therein. Capitalized terms used and not otherwise defined in this Second Amendment have the same respective meanings given to such terms in the Agreement, as amended hereby.

B. SRM and Cordis desire to amend the Agreement in order to reflect modifications to the project scope, design and development plan, deliverables and milestone timelines contained therein, with such modifications effective as of the Second Amendment Effective Date.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

1. Amendment.

(a) That the second sentence of Exhibit 1 (Design Inputs) to the Agreement is deleted and replaced in its entirety as follows:

The design shall refer exclusively to a stent delivery system with a working length of 57 centimeters.

(b) That Exhibit 2 (Design and Development Plan) to the Agreement is replaced in its entirety with the amended Exhibit 2 attached hereto as Appendix A.

(c) That the Completion Dates set forth in Exhibit 4 (Development Plan Payment Schedule and Milestones) to the Agreement are deleted and replaced in their entirety with:

Design Review I = Completion Date was extended to, and completed on, April 20, 2012

Design Review II = Completion Date shall be on or before December 18, 2012, except that if Cordis does not receive the documentation set forth in Section 1(c)(i) - (vi) of this Second Amendment on or before July 10, 2012, then the Design Review II Completion Date of December 18, 2012 shall be extended one (1) day for each day that SRM is delayed in delivering the

documentation set forth in (i) - (vi) to Cordis, and such new date shall be defined as the Design Review H Completion Date.

i. Final OUS (for use outside the United States) outer label (OL) content with translation & translation service certificate, certifying that each language translation is accurate,

ii. Final OUS OL, released by SRM (verification of OL content),

iii. Final OUS instructions for use (IFU) content with translation and translation certificate, certifying that each language translation is accurate,

iv. Final OUS IFU, released by SRM (verification of IFU content),

v. Final US (for use in the United States) inner label, OL, stent implant card for United States Product codes including both content and artwork, and

vi. IFU revision 1 for United States Product codes, including both content and artwork.

(d) That the third and fourth sentences of Section 2.4.1 of the Agreement shall be deleted and replaced in their entirety as follows:

In the event that the Design Review II is completed by Cordis pursuant to the Completion Date set forth in Exhibit 4 of the Agreement, SRM shall pay Cordis a one-time, non-creditable bonus of [**********] for early completion of the Milestones ("Early Bonus").

(e) Section 2.4.2 shall be added to the Agreement as follows:

Additional Development Fees. SRM has requested and Cordis agrees to perform, upon receipt of the payment set forth in this Section 2.4.2, Development Services to change the length of the Product from 65 cm to 57 cm and to increase the number of catalogs from 18 to 36, both as more specifically set forth in Exhibit 2 to the Agreement, as amended hereunder. SRM shall pay Cordis for the Development Services set forth in the immediate foregoing sentence, in the amount of [**********], by check payment to Cordis. Notwithstanding the payment terms in Section 2.4.1, SRM shall pay Cordis for the Development Services described in this Section 2.4.2 on the Second Amendment Effective Date.

2. Effect. Except as and to the extent amended by this Second Amendment, the Agreement shall remain in full force and effect in accordance with its terms. In the event of any

conflict between the terms of the Agreement and this Second Amendment, the terms and conditions of this Second Amendment shall control.

3. Counterparts. This Second Amendment may be executed in counterparts, each of which shall be deemed an original, but all of which together will constitute one and the same instrument.

IN WITNESS WHEREOF, the parties hereto have executed this Second Amendment as of the Second Amendment Effective Date.

CORDIS CORPORATION		**SILK ROAD MEDICAL, INC.**	
By:	/s/ Jose A. Gonzalez	By:	/s/ William Worthen
Print:	Jose A. Gonzalez	Print:	William Worthen
Title:	VP Production Ops	Title:	President & Chief Executive Officer
Date:	7/12/2012	Date:	7/9/2012

Appendix A

Exhibit 2: Design and Development Plan

SECTION 1 - PROJECT SCOPE AND APPROACHES

PRODUCT DESCRIPTION

New design consists in a shortened working length of the Precise Carotid Stent System. Application and clinical indication is determined by SRM.

PROJECT SCOPE

Under the scope of this project:

Cordis will create and release 36 new Carotid Stent Delivery System catalogs - 57 cm length (18 final subassemblies for SRM OUS commercial distribution and 18 final subassemblies for SRM United States clinical studies). These include combinations of six (6) stent diameters (5, 6, 7, 8, 9 and 10 mm) and three stent lengths (20 mm, 30 mm and 40 mm).

Stent Length(mm)	Stent Diameter(mm)
20	5
20	6
20	7
20	8
20	9
20	10
30	5
30	6
30	7
30	8
30	9
30	10
40	5
40	6
40	7
40	8
40	9
40	10

Product packaging will be qualified by Cordis in conjunction with development of the product.

Upon written request by SRM, Cordis will, all pursuant content provided solely by SRM, revise the previously released instructions for use, labels and stent implant card for the 18 final subassemblies for U.S. clinical studies to make them applicable for U.S. commercial distribution, and will provide such deliverables to SRM no later than five (5) months following receipt of SRM's request. For the avoidance of doubt, this one revision is part of the project scope and SRM is not required to pay any additional fees for this revision.

If testing is needed to support the revision of the instructions for use, labels, and stent implant cards, testing expenses (units and laboratory) shall be paid by SRM at the rate of [****] USD per unit.

MANUFACTURING SITE

New Carotid Stent Delivery System catalogs with 57 cm length assembly and packaging will be performed at Cordis de Mexico. Sterilization will be performed at Steris Isomedix Inc. sterilization facilities in El Paso, Texas.

FUNCTIONAL REPRESENTATIVES: Team members, roles, and responsibilities are subject to change at Cordis' sole discretion.

Team Member	**Roles**	**Responsibilities**
OETS (Sustaining) / Operations		
James Merrit	MEST Director	Overall Project Leadership.
Victor Baylon	MEST (Value Engineering) Manager	Project Manager. Provide input for this D&D plan.
Laura Gisela Rico	Lead MEST (Value Engineering) Engineer (Project Leader)	Project leader. Plan and execute key activities as per this D&D plan.
Laura C. Irigoyen	MIST (Value Engineering) Engineer	Provide project support.
Daniel Gonzalez	MEST (Value Engineering) Engineer	Provide project support.
Iris Castillo	MEST (Value Engineering /Contractor) – Packaging Engineer.	Provide project support in the area of packaging. Plan and execute key packaging related activities as per this D&D plan.
Antolin Salazar	MEST (Value Engineering) Technician	Provide project support.
Victor Baylon	Packaging Manager	Overall Packaging Leadership

Team Member	Roles	Responsibilities
Yipsi Bowley	MEST (Labeling and Packaging) Manager	Provide Design Control support. Provide input for this D&D plan.
R&D		
Wilson Tsang	R&D Eng/Mgr	Provide support for planning & execution of Design Verification/Validation as per this D&D plan.
Quality Assurance		
Nancy Amaya	QA Director	Overall QA leadership
Hector Medrano	QA Manager	QA project management. Provide input into this D&D plan.
Adriana Gamez	PQS/FAL Manager	Provide support/direction for this D&D Plan
Tatiana Del Valle	QA Engineer	QA Support
Operations		
Jose Salcedo	Mfg Manager	Operations Management.
Juan Carlos Gallegos	Mfg Eng Ops	Provide project support.
Cross-Functional Support		
Dennis Griffin	Regulatory Affairs Manager	Overall Regulatory Affairs project management, provide input for Regulatory Approach
Independent Peers		
Nitin Salunke	R&D Mgr	Serve as Independent Peer for Technical Design Review(s) as per this D&D Plan
Sergio Muñoz	QA Engineer	Serve as Independent Peer for Technical Design Review(s) as per this D&D Plan
Carlos Henao	OPS Engineer	Serve as Independent Peer for Technical Design Review(s) as per this D&D Plan

Design & Development APPROACHES

Marketing

Marketing Objectives

Responsibility of SRM.

Volume Expectations

Refer to Sections 3.3 and 3.3.1 of the Agreement for Minimum Volume commitments. Refer to Exhibit 5 of the Agreement for Forecast timelines and process.

Pricing Strategy

Pricing for final customer is managed by SRM.

Branding Name Strategy

Branding name strategy for 36 new Carotid Stent Delivery System catalogs — 57 cm length will be selected by SRM.

Initial Sales Forecast and ISS Requirements

[**********] units will be manufactured as the Initial Shelf Stock (ISS) requirement for product launch. Manufacture and delivery of ISS is not included in Development Fees. SRM shall place a written purchase order for the ISS, the price of which is [******] per unit.

Desired Clinical Indications

To be determined by SRM (not part of this plan)

Desired Performance Claims

To be determined by SRM (not part of this plan)

Key Marketing Activities

To be determined by SRM (not part of this plan)

Regulatory

Distribution Region

To be determined by SRM (not part of this plan)

Regulatory Classification

To be determined by SRM (not part of this plan)

Submission Type

To be determined by SRM (not part of this plan)

Regulatory Pathway

To be determined by SRM (not part of this plan)

Promotional Claims

To be determined by SRM (not part of this plan)

Import/Export Requirements:

To be determined by SRM (not part of this plan)

Testing Requirements

As determined by Cordis, Cordis will leverage the TDI's corresponding to the PMA approved PRECISE products marketed by Cordis, except those that are specific to the new length (57cm), which will be performed for the new length as set forth in the section Product Design Verification of this Design and Development Plan. Testing related to simulated use must be responsibility of SRM; since the clinical application of this product will be developed and validated by SRM.

Operations Planning

Carotid Stent Delivery System catalogs with 57cm length validation, such activities specified in this Design and Development Plan will be managed per Cordis Quality System.

Design Reviews

The following Technical Design Reviews (TDR) will be completed by Cordis for the carotid stent delivery system catalogs with 57cm length project:

- Design Review I: Combined Design Input, Concept Selection and Planning & Design Output Technical Design Review (Prototypes testing completed)
- Design Review II: Combined Verification/Validation and Design and Technology Transfer Technical Design Review (DV/PQ Report approved)

Evidence of completion of these design reviews will be documented as required per Cordis Quality System.

A Clinical Readiness Design Review is responsibility of SRM and will not be documented in the Cordis Quality System.

Design History File

A new electronic DHF will be created by Cordis for the 36 new Carotid Stent Delivery System catalogs - 57cm length project to allow for development and release of new documentation for these codes.

Risk Assessment and Mitigation

SRM is responsible for the risk management plan documentation required for 36 new Carotid Stent Delivery System catalogs - 57cm length due to new application (transcervical approach).

Concept Evaluation and Selection - Product & Package

Concept Generation
Cordis will manufacture the Product and SRM will brand the Product.

Prototyping Activities
Prototypes will be run by Cordis as a pre-requisite of the Design Verification/Product Performance Qualification. A summary of these evaluations, including reliability analysis of the testing done will be captured in an engineering report written by Cordis and provided to SRM.

Design Assessments
There is neither animal testing nor customer use feedback from Cordis for the 36 new Carotid Stent Delivery System catalogs - 57cm length. Clinical trial is responsibility of SRM.

Test Method Development
Existing Cordis Test Methods will be used by Cordis to assess the change in the length of the 36 new Carotid Stent Delivery System catalogs - 57cm. If any test method is not applicable based on the SRM intended use, technical design input must be performed by SRM.

Design Characterization

Design Characterization Activities
A tolerance stack up analysis will be done by Cordis to determine lengths for the 36 new Carotid Stent Delivery System catalogs - 57cm length components, Outer Member, Support Member, and their components. This stack up analysis will be used to determine dimensions for the components and for the packaging.

Key design elements not being modified or impacted as a result of the 57cm pivduct include the stent, SDS, packaging (except product tray), as existing components will be utilized and there is no change or impact at the manufacturing/process level. Changes will be done only to remove the Cordis and J&J branding.

Anticipated Design Iterations and Contingencies
There are no planned design iterations and contingencies.

Product Design Verification,

Technical Design Inputs (TDIs) affected by the change on the length (57cm) will be tested by Cordis for the 36 new SRM Carotid Stent Delivery System catalogs - 57cm length project and will be based on length modification and size bracketing strategy. The only This that Cordis will test are as follows:

- Usable length
- Exit port location
- MB Positioning
- Stent pre-deployment
- OM stoke length
- Hub/hypotube pull strength
- Hub/proximal wire pull strength
- Wire lumen/Proximal wire/PET Sleeve pull strength
- SM distal hypotube/proximal wire pull strength
- Coil Stop pull strength

For the avoidance of doubt, SRM will test TDIs for trackability and deployment force. Cordis will provide to SRM the following information (i) test method parameters and acceptance criteria Cordis uses to test Cordis' PRECISE® Carotid Stent System for trackability and deployment force and which Cordis determines are applicable to the Product, and (ii) sample sizes Cordis uses to test Cordis' PRECISE® Carotid Stent System for trackability and deployment force. Manufacture units for trackability and deployment force testing are included in the scope of the Development Fees up to the maximum number of units set forth in Exhibit 3 of the Supply Agreement.

For the avoidance of doubt, TDIs that will not be tested by Cordis for the 36 new Carotid Stent Delivery System catalogs - 57cm length project are:

- Crossing profile
- Luer fitting
- Air embolized
- Ability to aspirate
- Wire lumen ID

- SDS Tip ID
- Deployment accuracy
- OM hub/hemovalve joint torque
- Pod/body fuse joint pull strength & elongation
- Brite tip/pod fuse joint strength
- Wire lumen tip pull strength

Design Verification (DV) & Product Performance Qualification (PQ) for the 36 new Carotid Stent Delivery System catalogs - 57cm length will be combined and will address qualification of the product. DV/PQ units will be subjected to three EtO sterilization cycles.

Stability is not required as this product does not contain drug.

Packaging, Design Verification

Design Verification related to packaging are the impacted TDI's related to the packaging configuration (tray, pouch, sheath extrusion (length change), carton) only. The only TDIs that Cordis will be tested as part of the Design Verification for packaging are:

- Product Migration
- Product Visual Inspection
- Packaging Integrity Test (Visual Inspection)
- Package Challenge Test (Bubble Test)
- Dye Penetration Test
- Seal Pull Test

DV & PQ for the packaging will be combined. DV/PQ units will be subjected to three EtO sterilization cycles.

No aging testing will be performed by Cordis for the 36 new Carotid Stent Delivery System catalogs - 57cm length project.

Quality
Cordis Quality System is used by Cordis.

Design Validation - Product/Package

Product

The Carotid Stent Delivery System catalogs with 57cm length will be manufactured for SRM.

Design Validation for SRM intended use of the product is responsibility of SRM.
Product labeling dimensions are:

- Outer label: 5.625” x 9.625”
- Inner label: 5.25” x 8.825”

SRM to provide label content to Cordis. Fasson Trans-Therm 2 material to be used by Cordis. No aging testing will be performed for the 36 new Carotid Stent Delivery System catalogs -57cm length labeling.

SRM to provide to Cordis artwork and content for both instructions for use and stent implant card for the DV/PQ. For the avoidance of doubt, SRM is solely responsible for ensuring that the artwork and content of the instructions for use and stent implant card meet the requirements of all laws and regulations.

Cordis will purchase the materials for the instructions for use and stent implant card, which will fabricate by using the existing qualified Cordis specification (dimensions, materials, weight)

No clinical trial will be done by Cordis to support the 36 new Carotid Stent Delivery System catalogs - 57cm length.

Process Validation
Project approach to Process Validation will be done according to Cordis Quality System.

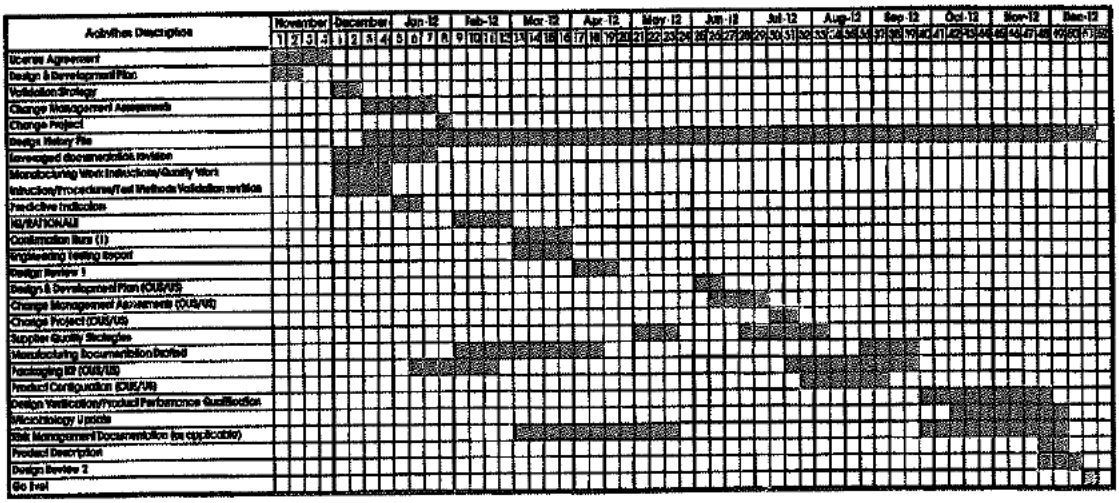
Sterilization
The Sterilization strategy is to be 3X EtO capable, which will be the same as current marketed devices (self expandable stents). Previous Cordis validations will be leveraged for sterilization.

DV/PQ units for both product and its packaging for the 36 new Carotid Stent Delivery System catalogs - 57cm length will be subjected to three EtO sterilization cycles.

Complaint Handling/FAL
See License Agreement for Complaint Handling and FAL.

SECTION 2 - DESIGN & DEVELOPMENT SCHEDULE

For detailed timeline see Attachment 1.



SECTION 3 - PROJECT DELIVERABLES

The documentation set forth in 1 and 2 immediately below are the only deliverables of Cordis to SRM for the 36 new Carotid Stent Delivery System catalogs - 57cm length project:

1. Carotid stent delivery system (femoral access approach) documentation that will be leveraged by Cordis:
    a. Sterility Assurance Assessment
    b. Product Description
    c. Operations Strategy and Manufacturing Readiness (manufacturing process documentation)
    d. Biocompatibility (Plan and Summary Report)
    e. Supplier Qualification (Including: Specification, Strategy, Checklist, and Agreement. New SQS will be done ONLY for affected components)
    f. Environmental Impact Assessment
    g. Shelf Life Test (Protocols/Reports) to support 24 months shelf life
    h. Software Validation (Protocols/Reports)

i. Physical Test Methods (Validation Protocols/Reports)

j. Essential Requirement Checklist (for application elements not impacted by the length change or SRM intended use)

k. DFMEA, PFMEA, MQP, AFMEA (for application elements not impacted by the length change or SRM intended use)

2. Documents that will be created by Cordis for SRM:

   a. Design Review I and Design Review II

   b. Design Summary (Related to length change)

   c. Product Configuration (Drawings, Specifications, etc., to reflect length change)

   d. Process Validation Strategy (Validation Change Management Assessment)

   e. Supplier Qualification (Process Strategy, Checklist for affected components)

   f. Installation Qualification/Operational Qualification (Protocols/Reports as required)

   g. Combined Design Verification /Product Performance Qualification (Protocols/Reports)

   h. Product Configuration (Bill of Materials, Route Sheets for 36 new Carotid Stent Delivery System catalogs - 57cm length)

   i. Sterility Assessment

3. For the avoidance of doubt, documents that are the sole responsibility of SRM and are not part of this Design and Development Plan:

   a. Market Opportunity Assessment

   b. Technology and Capabilities Assessment

   c. Design Change Record

   d. Prototype Evaluation (Protocol/Report — Animal)

   e. Prototype Evaluation (Protocol/Report — Bench)

   f. Prototype Evaluation Summary Report

   g. Global Market Plan

h. Pre-Clinical Study (Protocol/Report)

i. Clinical (Study Plan, Release Engineering Test Protocol/Report, Literature Review, Product Release Authorization Clinical Product)

j. Regional Launch Plan

k. Declaration of Conformity

l. Market Launch Preparation

m. Legal Clearance

n. Clinical Risk Management Plan

o. Trackability TDI

p. Deployment TDI

4. For the avoidance of doubt, all documents relative to the intended use, are the sole responsibility of SRM, and are not part of this Design and Development Plan. These documents include but are not limited to the following:

    a. Hazard List and AFMEA

    b. Design Validation (Protocol/Report)

SECTION 4 – Glossary

Term	Definition
Confirmation run	A single run of a process under normal production conditions.
IQ	Installation Qualification/Output Qualification, which is used synonymously with SWIP, Software Installation Protocol.
Product Performance Qualification (PQ)	Documented verification that the equipment and ancillary systems, under normal production conditions, can consistently produce finished product that meets all effective specifications. This term is also referred to in industry as PV (Product Validation).
Protocol	A pre-approved, written plan stating how validation testing will be conducted, including test parameters, product characteristics, production equipment, and decision points on what constitutes acceptable results.
Validation	Confirmation by examination and provision of objective evidence that provides a high degree of assurance that a specific process, method, or system will consistently produce a result meeting predetermined acceptance criteria.

Term	Definition
Validation Strategy (VS)	A project-specific document that establishes the validation approach, requirements and schedule of validation activities.
Design and Development Plan	A plan that describes the design and development activities and defines responsibility for implementation. It also identifies and describes the interfaces with different groups or activities that provide, or result in, input to the design and development process.
Design Review - FDA § 820.3(h)	Design review means a documented, comprehensive, systematic examination of a design to evaluate the adequacy of the design requirements, to evaluate the capability of the design to meet these requirements, and to identify problems.
Design Validation - FDA § 820.3(z)	Design Validation means establishing by objective evidence that device specifications conform with user needs and intended use(s).
Design Verification	Confirmation by examination and provision of objective evidence that the design output has fulfilled requirements set out in the Technical Design Input.
Technical Design Inputs (TDI)	The functional, performance, and interface requirements of a product, translated from the User Requirement to an engineering level of detail that can be verified. The requirements that form the Design Input establish a basis for performing subsequent design tasks and validating the design.
-Specification - FDA § 820.3(y)	Specification means any requirement with which a product, process, service, or other activity must conform.
Real Time Aging	Design verification after the product has been exposed to defined conditions for a period of time equal to or greater than the labeled shelf life. Real time aging is a confirmation of an accelerated aging study and is required if accelerated aging is required.
Accelerated aging	Design verification after the product has been exposed to a defined temperature and time in order to simulate a defined shelf life.
Design Change	A Change to form, fit, function, identity, quality, strength, or purity of product or process Design.
Design Change Control	Procedures for the identification, documentation, verification or where appropriate validation, review, and approval of design changes before their implementation.
Design Change Record	A report summarizing the history of Design Changes and their impact assessment.
Design History File - ISO/TR 14969:2004(E)	A compilation of records, which describes and records the history of the design activity.
Design History File - FDA § 820.3(e)	Design history file (DHF) means a compilation of records, which describes the design history of a finished device.
Final Assembly	Final assembly is defined as an assembly level at which the product or the device (or accessory to the device) is completed and suitable for use or capable of functioning, whether or not is packaged, labeled, or sterilized.
Component	Any raw material, subassembly, or part, which is intended to be included as part of the finished device.

Term	Definition
Intended Use	Describes how the device will be used and who the end users will be. This shall include the indicated full range of use for the product.
Leverage	When a project team utilizes information (components, specifications, deliverables, etc.) from a preexisting project or qualified product.
Product	Refers to medical devices, as well as, medical drug/device combinations. Includes components, packaging, manufacturing materials, in-process product, finished product, and returned product.
Product Configuration (PC)	Product Configuration objects describe the physical characteristics of a product. PC object types in cPDM include Specifications, Parts, Routers, Item Master Information, Branch Item Master etc.
Product Description (PD)	Matrix of Design Inputs and Outputs including references to additional items such as design verification and validation activities, and risk class.
Unqualified (UQ)	The state, referring to a PC document, that indicates qualification requirements are incomplete, per CFM 13001 and CFM 10369616.
Qualified (Q)	The state, referring to a PC document that indicates successful completion of all qualification requirements, per CFM 13001 and CFM 10369616.
Supplier	An establishment with whom Cordis has a relationship for the procurement of goods or services to the organization.
Failure Mode and Effects Analysis (FMEA)	A procedure by which each potential Failure Mode or fault of a system is analyzed to determine the consequences of effects thereof on the system, to classify each potential Failure Mode according to its severity, and to recommend actions to eliminate, or compensate for, unacceptable effects.
Sterility Assurance Level (SAL)	Probability of a viable microorganism being present on a product after sterilization. SAL is normally expressed as 10-n. Cordis products are sterilized with an SAL of 10-6.
Sterilization	Validated process used to render a product free from viable microorganisms.
Bioburden	Populations of viable organisms on a product and/or package.

THIRD AMENDMENT TO
SUPPLY AGREEMENT

THIS THIRD AMENDMENT TO SUPPLY AGREEMENT (this "Third Amendment") is made and entered into as of the last date of signature below (the "Third Amendment Effective Date"), by and between Silk Road Medical, Inc. ("SRM") and Cordis Corporation ("Cordis"), with reference to the following:

A. SRM and Cordis are parties to that certain Supply Agreement dated as of October 21, 2011, as amended as of March 12, 2012 and as of July 12, 2012 (collectively, the "Agreement"), providing for Cordis to perform development, manufacturing and supply services for SRM for a stent delivery system per the terms set forth therein. Capitalized terms used and not otherwise defined in this Third Amendment have the same respective meanings given to such terms in the Agreement, as amended hereby.

B. SRM and Cordis desire to amend the Agreement as set forth below, with such amendments effective as of the Third Amendment Effective Date.

1. NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows: Amendment.

(a) The Second sentence of Exhibit 5 (Commercial Supply of Product) of the Agreement, Section 4 (Delivery) is hereby deleted in its entirety and replaced with the following:

"All shipments shall be delivered DAT (Incoterms 2010) to the SRM selected carrier located at CEVA Logistics located at 1240 Don Haskins Drive, El Paso, Texas 79936 or such other warehouse as designated by Cordis ("Pick-Up Location)."

(b) Section 6 is hereby added to Exhibit 5 (Commercial Supply of Product) of the Agreement as follows:

"6.Responsibility. For clarity, Cordis is fully responsible for the storage, transportation and risk of loss of the Products (unfinished or finished) during their delivery from the Facility to SRM selected carrier at the Pick-Up Location. The Parties acknowledge and agree that such delivery may include delivery to and from one or more intermediate third party sterilization, processing or storage facilities. SRM shall be responsible for the risk of loss of Product beginning upon loading on to the SRM selected carrier. SRM shall be responsible for the importation of the Products (under SRM Importer of Record) over the United States-Mexico border, including the preparation and provision of any documentation required by government authorities in either country in connection therewith; except that Cordis shall provide the Mexican Custom's invoke. SRM and its selected broker agency shall be responsible for

the U.S. Customs and Border Protection documentation during the importation process. SRM shall be responsible to provide the documentation of destruction or exportation of the Product, to the FDA and/or U.S. Customs and Border Protection and as otherwise required under applicable law. The foregoing obligations shall be included under "Import/Export Requirements" in Exhibit 2 to this Agreement."

2. Effect. Except as and to the extent amended by this Third Amendment, the Agreement shall remain in full force and effect in accordance with its terms. In the event of any conflict between the terms of the Agreement and this Third Amendment, the terms and conditions of this Third Amendment shall control.

3. Counterparts. This Third Amendment may be executed in counterparts, each of which shall be deemed an original, but all of which together will constitute one and the same instrument.

IN WITNESS WHEREOF, the parties hereto have executed this Third Amendment as of the Third Amendment Effective Date.

CORDIS CORPORATION		**SILK ROAD MEDICAL, INC.**	
By:	/s/ Tom Turley	By:	/s/ Erica Rogers
Print:	Tom Turley	Print:	Erica Rogers
Title:	FODL	Title:	President & Chief Executive Officer
Date:	4/17/2013	Date:	4/19/2013

FOURTH AMENDMENT TO
SUPPLY AGREEMENT

THIS FOURTH AMENDMENT TO SUPPLY AGREEMENT (this "**Fourth Amendment**") is made and entered into as of the last date of signature below (the "**Fourth Amendment Effective Date**"), by and between Silk Road Medical, Inc. ("**SRM**") and Cordis Corporation ("**Cordis**"), with reference to the following:

A. SRM and Cordis are parties to that certain Supply Agreement dated as of October 21, 2011, as amended as of March 12, 2012, July 12, 2012 and April 19, 2013 (collectively, the "**Agreement**"), providing for Cordis to perform development, manufacturing and supply services for SRM for a stent delivery system per the terms set forth therein. Capitalized terms used and not otherwise defined in this Fourth Amendment have the same respective meanings given to such terms in the Agreement, as amended hereby.

B. SRM and Cordis desire to amend the Agreement as set forth below, with such amendments effective as of the Fourth Amendment Effective Date.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

1. **Amendment**. Exhibit 5 of the Agreement is hereby deleted in its entirety and replaced with the following Exhibit 5:

"Exhibit 5: Commercial Supply of Product

The Parties agree that the following terms shall govern the commercial supply of Product by Cordis to SRM:

1. **FORECASTS; Orders**. SRM will provide to Cordis on a monthly basis an updated rolling forecast of expected purchases for the following (24) twenty four month period commencing two (2) months from the applicable date ("**Updated Forecast**"). Each Updated Forecast shall be binding for (i) the first month by part number one hundred percent (100%) as to mix and volumes, (ii) the second month by part number ninety percent (90%) as to mix and volumes (iii) the third month by part number seventy five percent (75%) as to mix and volumes. The first three months of an Updated Forecast which are binding is a "Binding Quarter." SRM's orders for Product shall be made pursuant to a written purchase order specifying the desired quantity and configuration of Product, and subject to Section 2 of this Exhibit, will provide for shipment in accordance with reasonable delivery schedules and lead times as may be agreed upon from time to time by SRM and Cordis. In addition, if requested by Cordis, SRM will participate in Cordis' Sales and Operations Planning Process (S&OP) to review SRM's forecasts, orders, and market demand changes.

2. **ACCEPTANCE of ORDERS**. All purchase orders shall be delivered by SRM to Cordis through the Cardinal Health Customer Service team, using any of the standard ordering channels. SRM shall place all purchase orders to Cordis a minimum of eight (8) weeks prior to the desired date of delivery. SRM shall place all purchase orders for Product in a Complete Lot. SRM shall place no more than one (1) purchase order each month. SRM agrees that Cordis may delivery quantities of Product in quantities +/-10% of the quantities set forth in the SRM purchase orders. SRM agrees that Cordis is not required to deliver Product in excess of one-hundred and fifty percent (150%) of the Updated Forecast for any month which is binding, providing that in total Cordis is not obligated to provide in excess of one hundred and twenty five percent (125%) of the Updated Forecast for any Binding Quarter. In the event Cordis is unable to accept a purchase order, Cordis will promptly notify SRM as to why it cannot accept such purchase order. In the event of any inconsistency between this Agreement and a purchase order, the terms of this Agreement shall control. For clarity, any additional or inconsistent terms in any purchase order, acknowledgment or other form are hereby excluded. "Complete Lot" shall mean a minimum quantity of [*****] of one Product code.

3. **CANCELLATION; RESCHEDULING of DELIVERY**. SRM or its designees may cancel an outstanding purchase order by notifying Cordis in writing; provided that SRM is responsible for payment of the inventory as set forth in Section 11.6 of this Agreement. SRM may at any time reschedule the shipment date for any Products that have not been shipped to SRM, provided that SRM pays a reasonable restocking fee to be mutually agreed upon in writing associated with the storage of such Products.

4. **DELIVERY**. All shipments shall be delivered to the carrier at Cordis' distribution facility located in Texas or Mississippi (the "**Distribution Center**") for delivery to the location specified by SRM in the purchase order. The carrier shall be selected by mutual agreement of SRM and Cordis, except that if no such agreement is reached in good faith, the carrier shall be the standard carrier used by the Cardinal Health Customer Service team for freight that is to be transported via truck. Each shipment of Products shall be insured for the benefit of SRM. Concurrent with the shipment of each order of Product, Cordis shall deliver to SRM a Router corresponding to such shipment in along with a Certificate of Conformity stating that the shipment complies with the Specification. Title and risk of loss shall transfer to SRM at the time Cordis delivers the Products to the carrier at the Distribution Center. SRM shall be invoiced for transportation costs from the Distribution Center to the location specified by SRM in the purchase order.

"Router" shall be limited to the following information; process flows, component traceability, inspection results (pass/ fail), quality assurance audit results (inspections made on the Product during manufacturing) (pass fail), label inspection results (pass/ fail), pyrogen testing results (pass/ fail), route sheet review (pass/ fail), sterilization

flow, copy of the first and last label used in the lot, label reconciliation results, set-up parameters and testing results (equipment set-up, process parameters information and results of the testing performed to the Product during manufacturing).

5. **PACKAGING**. Products will be packaged, labeled, sterilized, and released by Cordis to SRM in accordance with (i) the Specifications and (ii) Section 6.8 and Section 8.2 of the License Agreement. Products shalt be shipped to SRM in containers as agreed to by Cordis and SRM prior to the first shipment of Product. Each such container shall be individually labeled with a description of its contents, including the manufacturer name, manufacturer lot number, quantity of Products, use by date, and date of manufacture.

6. **RESPONSIBILITY**. For clarity, Cordis is fully responsible for the storage, transportation and risk of loss of the Products (unfinished or finished) during their transit from the Facility to the carrier at the Distribution Center. The Parties acknowledge and agree that such delivery may include delivery to and from one or more intermediate third party sterilization, processing or storage facilities.

2. **Effect**. Except as and to the extent amended by this Fourth Amendment, the Agreement shall remain in full force and effect in accordance with its terms. In the event of any conflict between the terms of the Agreement and this Fourth Amendment, the terms and conditions of this Fourth Amendment shall control.

3. **Counterparts**. This Fourth Amendment may be executed in counterparts, each of which shall be deemed an original, but all of which together will constitute one and the same instrument.

IN WITNESS WHEREOF, the parties hereto have executed this Fourth Amendment as of the Fourth Amendment Effective Date.

CORDIS CORPORATION		**SILK ROAD MEDICAL, INC.**	
By:	/s/ Stephen Davis	By:	/s/ Lucas Buchanan
Print:	Stephen Davis	Print:	Lucas Buchanan
Title:	Director Business Development	Title:	CFO
Date:	April 9, 2018	Date:	4/4/2018

LICENSE AGREEMENT

This License Agreement ("Agreement") is entered into as of the Effective Date by and between **Cordis Corporation,** a corporation duly organized and existing under the laws of the state of Florida and having its principal office at 430 Route 22 East, Bridgewater, NJ 088070908 ("Cordis" and a "Party"), and **Silk Road Medical, Inc.,** a corporation duly organized and existing under the laws of the state of Delaware and having its principal office at 735 North Pastoria Avenue, Sunnyvale, California 94085 ("SRM", a "Party", and collectively with Cordis, the "Parties").

WHEREAS, Cordis owns certain patent rights and technical and regulatory information concerning its PRECISE® Carotid Stent System;

WHEREAS, SRM has a business in transcervical access to, flow-altered treatment of, and closure of the access point into, the carotid artery;

WHEREAS, SRM intends to develop a modified stent delivery system optimized for transcervical implantation of the PRECISE® carotid stent, for which SRM intends to submit a PMA application as well as other international regulatory approvals and to CE mark the device in accordance with EU law;

WHEREAS, SRM wishes to license from Cordis certain intellectual property related to the PRECISE® carotid stent, including the right to reference clinical data and other information contained in the Cordis PMA, the Cordis Design Dossier, and/or other regulatory submissions applicable to the Cordis PRECISE® Carotid Stent System and

WHEREAS, the Parties wish to work together pursuant to the terms of this Agreement, to enable SRM to achieve its goals;

NOW THEREFORE, in consideration of the premises and the mutual covenants contained herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

1. DEFINITIONS

For the purposes of this Agreement, the following terms shall have the following meanings:

1.1. "Affiliate" means any corporation, company, partnership, joint venture and/or firm which controls, is controlled by, or is under common control with a Party hereto. For purposes of this definition, "control" shall mean (a) in the case of corporate entities, direct or indirect ownership of at least fifty percent (50%) of the stock or shares entitled to vote for the election of directors; or (b) in the case of non-corporate entities, direct or indirect ownership of at least fifty percent (50%) of the equity interest with the power to direct the management and policies of such non-corporate entities.

[***] Information has been omitted and submitted separately to the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

1.2. “Control” or “Controlled” shall mean with respect to any (i) item of information, including, without limitation, know-how, or (ii) intellectual property right; the possession (whether by ownership or license) by a Party of the ability to grant to the other Party access and/or a license as provided herein under such item or right without violating the terms of any agreement or other agreements with any third party.

1.3. “Cordis Patent Rights” means the U.S. patent and patent applications set forth in Appendix A that constitute the PRECISE® Carotid Stent System Portfolio, including any divisionals, continuations, continuation-in-part applications, of the foregoing, U.S. patents issuing from the foregoing applications, U.S. patents resulting from reissues or reexaminations thereof and extensions thereof, and foreign patents and patent applications claiming priority to any of the foregoing.

1.4. “Cordis Technology” shall mean all inventions and ideas, whether or not patentable, know-how, processes, information and data, including any copyright or trade secret relating thereto, which (i) are owned or Controlled by CORDIS or its Affiliates as of the Effective Date or (ii) which are developed, acquired or otherwise come into ownership or Control of CORDIS during the Term of this Agreement from a third party other than SRM, and includes the PRECISE® Carotid Stent System and Cordis Patent Rights.

1.5. “Effective Date” means December 17, 2010.

1.6. “Exit Transaction” means in one transaction or in a series of related transactions, (i) the sale, transfer or other similar disposition of SRM Assets, or (ii) a merger, acquisition, consolidation or similar event involving the entirety of the SRM entity, with or to another non-Affiliate entity in which SRM’s stockholders, immediately prior to such event, do not hold at least fifty percent (50%) of the voting securities of the other non-Affiliate entity (or the ultimate parent of such entity) immediately following such event involving the entirety of the SRM entity. The entity which participates in an Exit Transaction with SRM shall be referred to as SRM’s “assignee/successor.”

1.7. “Gross Sales” means any and all forms of consideration, monetary or otherwise, received by SRM or any of its Affiliates from the sale, lease, license or other disposition of Licensed Products and Licensed Methods. For the avoidance of doubt, internal licenses, transfers and sales between SRM and any of its Affiliates shall not be calculated as part of the Gross Sales.

1.8. “Licensed Product” means any SRM product that if made, used, offered for sale, sold or imported would, but for the licenses granted herein, infringe one or more of the Cordis Patent Rights in the SRM Field.

1.9. “Licensed Method” means any SRM process or procedure that, but for the license granted herein, would infringe one or more of the Cordis Patent Rights in the SRM Field.

1.10. “Licensed IP” means the Licensed Products and Licensed Methods.

1.11. “Net Sales” means Gross Sales minus: (1) customary trade, quantity or cash discounts and non-affiliated brokers’ or agents’ commissions actually allowed and taken; (2) import, export, excise, sales and value added taxes, custom duties and freight, shipping and insurance costs, to the extent separately stated on the purchase order, invoice or other document of sale; and (3) credits for returns.

1.12. “SRM Assets” means (i) substantially all of SRM’s equity, or (ii) all or substantially all of SRM’s assets to which this Agreement relates. For the purpose of clarity, the assets referred to in clause (ii) do not include that portion of SRM Technology concerning the diagnosis and/or treatment of stroke or neurovascular conditions other than carotid artery disease.

1.13. “SRM Field” means methods, materials, protocols, assays, devices, machines and apparatus related to transcervical treatment of carotid artery disease with an intravascular stent where blood vessels are accessed from the neck and cervical area utilizing a stent delivery system having a maximum working length of 90 centimeters. For the avoidance of doubt, the SRM Field does not include transfemoral access to the vasculature.

1.14. “SRM Technology” means all inventions and ideas, whether or not patentable, know-how, processes, information and data, including any copyright or trade secret relating thereto, for the transcervical access to, blood-flow alteration within, intervention within (including through delivery of stents mounted on particular, transcervical-specific stent delivery systems), and closure of the access point into, the carotid artery, for purposes of diagnosis and/or treatment of carotid artery disease, stroke, and other neurovascular conditions, which (i) are owned or Controlled by SRM as of the Effective Date, or (ii) which are developed, acquired or otherwise come into ownership or Control of SRM during the Term of this Agreement from a third party other than Cordis.

1.15. For purposes of this Agreement, the CE mark for the Cordis PRECISE® Carotid Stent System shall mean the mark demonstrating conformity of the PRECISE® Carotid Stent System with Council Directive 93/42/EEC of 14 June 1993 concerning medical devices and subsequent amendments.

1.16. “Cordis PMA” shall mean Premarket Approval Application P030047, which received PMA Approval on September 22, 2006, together with all approved PMA Supplements thereto.

1.17. [RESERVED].

1.18. “FDA” shall mean the United States Food and Drug Administration.

1.19. “FDCA” shall mean the United States Federal Food, Drug, and Cosmetic Act of 1938, as amended (21 U.S.C. §§ 301 et. seq.).

1.20. “Law” shall mean any United States or non-United States federal, national, European Union, supranational, state, provincial, local or similar law, ordinance, regulation, rule, code, directive, order, or requirement.

1.21. “Notified Body” shall mean any third party designated by the Competent Authorities in EU Member States, to participate in assessment of the conformity of certain classes of medical devices with applicable EU rules and, upon completion of such assessment, required to issue related CE certificate(s) of conformity of such medical devices with applicable EU law.

1.22. “PMA Application” and/or “Premarket Approval Application” shall mean a premarket approval application under section 515(c) of the FDCA requesting the FDA’s approval to commercially sell and distribute a medical device in the United States and its territories and possessions, including all information submitted with or incorporated by reference therein.

1.23. “PMA Approval” shall mean approval from the FDA of a PMA Application.

1.24. “PMA Supplement” shall mean a supplemental application to an approved PMA Application, including all information submitted with or incorporated by reference therein.

1.25. “PMA Supplement Approval” shall mean approval from the FDA of a PMA Supplement.

1.26. “Regulatory Authority” shall mean with respect to any country or jurisdiction, any governmental entity involved in granting approval of, accepting notification of, or regulating the investigation, manufacture, distribution, marketing, sale, pricing or reimbursement of a Licensed Product, a Licensed Method or the Cordis PRECISE® Carotid Stent System in that country or jurisdiction.

1.27. “Right of Access Letter” shall mean a letter from Cordis to BSI, or other Notified Body as applicable, authorizing the Notified Body to access the Design Dossier and related documentation on the basis of which the PRECISE® Carotid Stent System is CE marked. SRM warrants that information accessed shall be used solely for the purposes of referencing the clinical data and other information contained in the

Design Dossier and related documentation for the purposes of CE marking of Licensed Products.

1.28. "Letter of Authorization" shall mean a letter from Cordis to SRM authorizing the FDA or any comparable foreign authority to reference the clinical data and other information contained in the Cordis PMA, or otherwise on file with any foreign Regulatory Authority in a jurisdiction in which SRM is seeking regulatory clearance or approval to market a Licensed Product or Licensed Method for the purpose of facilitating FDA approval of the SRM PMA, any SRM PMA Supplements, or marketing authorization, clearance, approval, permit or license, as the case may be.

1.29. "SRM PMA" shall mean PMA Approval and PMA Supplement Approval of a PMA Application or PMA Supplement, as the case may be, for the Licensed Product.

1.30. "Design Dossier" shall mean the compilation of technical documentation per Council Directive 93/42/EEC as last amended, and related notices of change submitted to the notified body for conformity assessment and/or design examination of the Cordis PRECISE® Carotid Stent System or any aspect thereof.

1.31. "Improvement" shall mean any modification to or derivative of the Cordis PRECISE® Carotid Stent System.

1.32. "BSI" shall mean the British Standards Institution.

1.33. "PRECISE® Carotid Stent System" shall mean the PRECISE® Carotid Stent System, the PRECISE RX® Carotid Stent System, and/or the PRECISE PRO RX® Carotid Stent System.

1.34 [**********]

1.35 [**********]

2. LICENSE GRANTS

2.1. (a) Cordis hereby grants to SRM and its Affiliates, solely within the SRM Field, a worldwide, non-exclusive, royalty-bearing license, without the right to sublicense, to make, have made, use (including but not limited to testing, experimenting and conducting clinical trials), market, offer for sale, sell, have sold, distribute, have distributed, import and have imported, Licensed Products and to practice Licensed Methods, and otherwise to commercialize and exploit the Licensed IP in the SRM Field.

(b) Cordis grants to SRM a non-exclusive license to reference, in any SRM regulatory filing made with any Regulatory Authority having jurisdiction over a Licensed Product or Licensed Method (including but not limited to as part of the SRM PMA) in each jurisdiction where SRM seeks regulatory approval, and as part of any

application, subsequent amplification, variation or extension of a CE mark for a Licensed Product: the clinical data, material and any other information contained in the Cordis PMA, the Design Dossier and related documentation on the basis of which the PRECISE® Carotid Stent System is PMA approved, CE marked, or in any other regulatory submission applicable to the PRECISE® Carotid Stent System that is on file with a Regulatory Authority.

2.2. Despite the nominally 'non-exclusive' nature of the license granted hereunder, Cordis expressly agrees that it will not license the Licensed IP within any portion of the SRM Field to any other third party during the Term of this License Agreement.

2.3. For clarity, Sections 2.1 and 2.2 do not affect Cordis' right to continue to develop, in-license, market and sell any current or future product, including the right to make, have made, use, market, offer for sale, sell, have sold, distribute, have distributed, import and have imported products, including those covered by the Licensed IP in any and all fields, or out-license any current or future product outside the SRM Field.

2.4. Nothing in this Agreement shall be construed to confer any rights upon SRM by implication, estoppel or otherwise as to any technology or intellectual property rights of Cordis, beyond the express licenses granted to SRM and its Affiliates herein.

3. MONETARY CONSIDERATION & ROYALTIES

3.1. License Fee. Within ten (10) days of execution of the Agreement, SRM shall provide to Cordis a License Execution Fee of [*********]. This Fee shall not be creditable against any other payment to be made under this Agreement and shall not be refundable for any reason other than either (i) an Arbitrator may award a refund of the license execution fee, in whole or in part, for a finding of material breach pursuant to Dispute Resolution prior to FDA approval of the Licensed Product, or (ii) by mutual agreement of the Parties.

3.2. Royalty. SRM shall pay to Cordis, on a calendar quarter basis during the Term of the Agreement, royalties equal to [*********] of Net Sales during the preceding quarterly period. SRM shall pay such royalties to Cordis within sixty (60) days following the end of such preceding quarterly period.

3.3. Taxes. Cordis shall be responsible for any and all tax consequences associated with the payment of fees and royalties by SRM under this Agreement.

3.4. Royalty Reports. Within sixty (60) days following the end of each calendar quarter in which a commercial sale of a Licensed Product or Licensed Method has been made, SRM shall deliver to Cordis a written report showing at least (i) the **Gross** Sales and Net Sales during such calendar quarter, and (ii) the amount of any royalties due to Cordis for such calendar quarter.

3.5. Payments. All payments due Cordis shall be payable in United States Dollars, in immediately available funds, by wire transfer in accordance with written instructions provided by Cordis to SRM not less than two (2) business days prior to the due date of such payment. If Cordis fails to provide such written notice, payment shall be made to Cordis at Cordis' corporate office: 430 Route 22 East, Bridgewater, NJ 08807-0908 Attn: VP Finance. As to Net Sales made in any country outside the United States in local currency, the applicable earned royalty shall be converted from local currency into United States Dollars at the applicable exchange rate published in the Wall Street journal on the last business day of the subject quarter.

4. ROYALTY AUDITS

4.1. Upon the written request of Cordis and not more than once in each calendar year, SRM shall permit an independent certified public accounting firm selected by Cordis and reasonably acceptable to SRM, at Cordis' expense, to have access during normal business hours to such of the records of SRM as may be reasonably necessary to verify the accuracy of the royalty reports for any year ending not more than twenty-four (24) months prior to the date of such request. The accounting firm shall disclose to Cordis only whether or not the reports are correct and/or the amount of any discrepancies. All findings by the accounting firm shall be shared with SRM.

4.2. If such accounting firm concludes that additional royalties were owed during any particular period, SRM shall pay the additional royalties within thirty (30) days of the date of the accounting firm's written report. The fees charged by such accounting firm shall be paid by Cordis; provided, however, that if the audit discloses that the royalties payable by SRM for the audited period are more than ten percent (10%) higher than the royalties actually paid for such period, then SRM shall pay the reasonable fees and expenses charged by such accounting firm for the audit and shall pay interest on the amount of royalties not previously paid but identified as payable as a result of the audit, at a rate of two percent (2%) per annum.

4.3. Cordis shall treat, and Cordis shall cause the accounting firm to treat, all financial information subject to review under this Audit right as confidential to SRM, under Section 9 ("Confidentiality") below.

5. OWNERSHIP AND PROSECUTION OF PATENT RIGHTS

5.1. Cordis acknowledges that SRM has certain intellectual property rights to the SRM Technology. SRM shall retain all rights in the SRM Technology. SRM acknowledges that Cordis has certain intellectual property rights to the Cordis Technology, including to the Cordis Patent Rights. Cordis shall retain all rights in the Cordis Technology, subject to the licensed rights granted to SRM herein.

5.2. Any inventions, improvements, or ideas made or conceived by Cordis, individually or jointly with SRM as part of, or during work performed under, this Agreement, that

(i) incorporates only the SRM Technology, or (ii) is considered an improvement only of the SRM Technology, shall be solely owned by SRM. Cordis shall disclose all such inventions, improvements, and ideas, whether or not patentable, promptly to SRM, and Cordis hereby assigns to SRM all of Cordis' rights, title and interest in and to each such invention, improvement, and idea.

5.3. Any inventions, improvements, or ideas made or conceived by SRM, individually or jointly with Cordis as part of, or during work performed under, this Agreement, that (i) incorporates only the Cordis Technology or (ii) is considered an improvement only of the Cordis Technology, shall be solely owned by Cordis. To the extent that any invention, improvement or idea under this section is also considered an Improvement of Licensed IP, it shall be licensed to SRM under this Agreement. SRM shall disclose all such inventions, improvements, and ideas, whether or not patentable, promptly to Cordis, and SRM hereby assigns to Cordis all of SRM's rights, title and interest in and to each such invention, improvement, and idea.

5.4. Cordis and SRM shall jointly own any new inventions, improvements or ideas that are made or conceived as part of, or during work performed under, this Agreement, that (i) incorporate both Cordis Technology and SRM Technology, or (ii) are considered an improvement of both Cordis Technology and SRM Technology ("Joint Inventions"). To the extent that any Joint Inventions include Licensed IP, they shall be licensed to SRM under this Agreement. Unless so licensed under this Agreement, each Party can make (have made), use, offer for sale, sell (have sold) or import (have imported) any product or method constituting a Joint Invention; provided, however, that (a) SRM and any SRM assignee/successor expressly agrees not to make (have made), use, offer for sale, or sell (have sold) or import (have imported) any product or method constituting one or more Joint Inventions outside the SRM Field, nor shall SRM or any SRM assignee/successor transfer to any third party any rights (for example, by license, assignment or sale) to Joint Inventions outside the SRM Field; and (b) Cordis expressly agrees not to make (have made), use, offer for sale, or sell (have sold) or import (have imported) any product or method constituting one or more Joint Inventions within the SRM Field, nor shall Cordis transfer any rights to any third party (for example, by license, assignment or sale) to Joint Inventions within the SRM Field; and (c) the restrictions in subsections 5.4(a) and (b) shall survive termination of this Agreement. Each Party shall disclose all Joint Inventions, whether or not patentable, promptly to one another. In the event that any Joint Invention is not jointly owned by Cordis and SRM as a matter of law, Cordis hereby assigns to SRM an undivided joint ownership interest in all of Cordis' rights, title and interest in and to any Joint Invention that is made or conceived solely by Cordis as part of, or during work performed under, this Agreement, and SRM hereby assigns to Cordis an undivided joint ownership interest in all of SRM's rights, title and interest in and to any Joint Invention that is made or conceived solely by SRM as part of, or during work performed under, this Agreement.

5.5. Each Party agrees that it will, within a reasonable timeframe upon the request of the other Party, take all reasonable steps, including executing all necessary documents, to fully effectuate the foregoing ownership provisions concerning separately and jointly owned inventions, improvements or ideas.

5.6. (a) Each Party shall be responsible, at its sole expense and discretion, for the protection, including, if said Party so desires, the preparation, filing, prosecution and maintenance of all patent applications and patents (i) solely within that Party's respective Technology, and (ii) solely owned by that Party, using legal counsel of that Party's choice. Each Party shall have no obligation whatsoever to prepare, file, prosecute, or maintain any patent application or patent within its own Technology.

(b) The Parties shall jointly protect and maintain all Joint Inventions, which may include the filing, prosecution and maintenance of patents and patent applications for Joint Inventions. Accordingly, the Parties shall meet, confer and act together as a composite party for all protection, prosecutorial, and/or maintenance matters related to Joint Inventions, including determining if a Joint Invention should be maintained as a trade secret or filed in a patent application. To this end, each Party agrees that it will take all reasonable steps, including executing all necessary documents, to prepare, file, prosecute, and maintain all patent applications and patents concerning such Joint Invention. Each Party further undertakes to consider, in good faith, any reasonable requests by the other Party to file and prosecute any patent claims within the Joint Inventions that may be particularly beneficial to the requesting Party.

(c) The Parties agree to use patent counsel reasonably acceptable to both SRM and Cordis and shall equally share all expenses in connection with the preparation, filing and prosecution of patent applications that claim patentable, jointly owned Joint Inventions. In the event that one party declines to equally share the expenses related to the preparation, filing and prosecution of patent applications that claim patentable, jointly owned Joint Inventions ("Declined Applications"), that Party shall provide the other Party with reasonable notice of such determination, which shall be at least thirty (30) days where reasonably possible, in advance of any deadline to prosecute or maintain any such patent or patent application, and the other Party shall have the option to prosecute or maintain such patent or patent application, as applicable, at its own expense. If the other Party exercises the foregoing option to prosecute and maintain said Declined Applications, then the Party providing the initial notice agrees to surrender and relinquish all control and decision making to the other Party with regard to the filing, prosecution and maintenance of said Declined Applications. For avoidance of doubt, the Party providing the initial notice shall not lose any rights to any patents issuing from said Declined Applications.

(d) In the case of foreign patents and patent applications that are part of the Joint Inventions, if either Party elects to file, prosecute or maintain a foreign patent or patent application in a foreign country or jurisdiction that is not agreed upon by both Parties ("Other Foreign Applications"), the electing Party shall bear all costs of filing,

prosecution and maintenance of such Other Foreign Applications in that foreign country or jurisdiction, and shall fully control and make all decisions with regard to the filing, prosecution and maintenance of said Other Foreign Applications in that foreign country or jurisdiction. For avoidance of doubt, the non-electing Party shall not lose any rights to any patents issuing from said Other Foreign Applications.

6. COOPERATION BETWEEN PARTIES

6.1. Manufacturer. (a) Subject to Section 6.5, SRM will work exclusively for development, manufacture and supply of Licensed Products and Licensed Methods with either (i) Cordis; or (ii) Nitinol Devices and Components, Inc. ("NDC") ("Manufacturer"). The consent by Cordis to participate as a Manufacturer shall be at the sole discretion of Cordis. In the event development begins with one of the above entities and then that entity cannot continue for some reason, SRM can seek a third party manufacturer (who shall also be considered a "Manufacturer" under this Agreement), but only with the advanced written consent of Cordis, such consent shall not be unreasonably withheld.

(b) Cordis shall transfer to Manufacturer, upon reasonable request by Manufacturer from time to time, (i) any and all manufacturing and other know-how that exists and is under Cordis' Control as of the Effective Date, and (ii) any and all manufacturing and other know-how that is developed after the Effective Date, that pertains to the PRECISE® Carotid Stent System, and is within Cordis' Control at the time of the request, in either case that is necessary for Manufacturer to develop, manufacture and supply the Licensed Products and Licensed Methods for SRM; provided, however, Manufacturer shall not disclose such know-how to SRM or any third party, and Manufacturer shall execute an appropriate confidentiality agreement ("Manufacturer Confidentiality Agreement") between Cordis and Manufacturer. Notwithstanding the foregoing, Manufacturer shall be free to disclose to SRM within Manufacturer's discretion, and to use on SRM's behalf without restriction, any know-how developed by Manufacturer and/or SRM after the Effective Date that is relevant or useful to the development, manufacture or supply of Licensed Products and Licensed Methods that does not disclose the manufacturing or other know-how of Cordis or violate the Manufacturer Confidentiality Agreement between Cordis and Manufacturer.

6.2. Technical Information Rights. (a) In order to facilitate regulatory approval of any Licensed Product or Licensed Method, Cordis shall provide to SRM:

(1) A Letter of Authorization; and

(2) A Right of Access Letter.

Any Letter of Authorization, Right of Access Letter or other information provided by Cordis under this subparagraph 6.2 shall be used solely for the purpose of allowing a Regulatory Authority to access the clinical data and other information contained in

the Design Dossier, Cordis PMA, or other regulatory body registration or licensing submission and/or related documentation for the purposes of regulatory clearance or approval of the Licensed Products.

(b) Notwithstanding anything to the contrary, any information shall be limited to information within Cordis' possession or control that relates directly to the Licensed IP and that is reasonably required for the development, manufacture and/or commercialization of Licensed Products and Licensed Methods in the SRM Field, and SRM will have the right to reference such information for the purposes of such development, manufacture and commercialization of Licensed Products and Licensed Methods in the SRM Field under the Agreement. Disclosure of any information from Cordis to SRM will be subject to the confidentiality provisions of Section 9 of this Agreement; provided, however, that the confidentiality provisions shall not be construed to prevent or restrict SRM from obtaining or maintaining regulatory approval of Licensed Products and Licensed Methods as contemplated by this Agreement or from complying with its obligations under Section 6.4(d).

(c) Cordis shall promptly notify SRM and NDC, as the case may be, of any process or design changes that are directly related to, and may affect the manufacture of, the PRECISE® Carotid Stent System being manufactured and sold as of the time of execution of this Agreement.

(d) (1) The Parties acknowledge and agree that during the term of this Agreement, (i) SRM shall be responsible for development of, all development costs of, and all costs related to and arising from obtaining necessary regulatory approval for, the Licensed Products and Licensed Methods;

(ii) at SRM's reasonable request and at SRM's expense, Cordis shall provide to SRM assistance and advice using Cordis information then on-hand, concerning the Cordis PRECISE® Carotid Stent System and its use in development of the first Licensed Product or Licensed Method; and

(iii) after SRM receives regulatory approval for the first Licensed Product or Licensed Method in any jurisdiction, upon SRM's reasonable request and at SRM's expense, Cordis shall provide further assistance and advice using Cordis information then on-hand, concerning the Cordis PRECISE® Carotid Stent System and its use in development of the any Licensed Product or Licensed Method.

(2) Cordis shall provide such assistance under subparagraphs (ii) and (iii) as promptly as reasonably practicable, given Cordis' circumstances at the time of SRM's reasonable request. For the purpose of clarity, if Cordis deems information that could be helpful to SRM under Section 6.2(d)(1) to be proprietary to Cordis, and if Cordis is not otherwise inclined to share same with SRM under the terms of, and to further the purposes of, this Agreement, the Parties shall discuss in good faith how to proceed.

6.3. Development Plan. (a) SRM agrees to undertake the development of the Licensed Products and Licensed Methods at its own cost and expense.

(b) Within thirty (30) days after the end of each calendar year, SRM shall provide Cordis with written reports setting forth in reasonable detail the progress made in the development of Licensed Products and Licensed Methods. Disclosure of such written reports from SRM to Cordis will be subject to the confidentiality provisions of Section 9 of this Agreement. Each such report shall include, without limitation, a description of all studies conducted during the period covered by the report, and a reasonable summary of data generated as part of the Licensed Product and Licensed Method development efforts during the period covered by the report.

6.4. Regulatory Matters. (a) SRM shall be solely responsible for (and shall use its reasonable efforts, and at its sole expense) all activities required to obtain regulatory approval of the Licensed Products and Licensed Methods.

(b) SRM shall, at its sole expense, be responsible for the preparation and filing, in its own name, with the appropriate regulatory authorities, all documents, including without limitation, all regulatory filings that are necessary to conduct clinical studies of Licensed Products and Licensed Methods and applications for regulatory approval that are necessary to market and sell Licensed Products and practice Licensed Methods in covered geographies.

(c) When necessary, Cordis shall authorize the FDA to reference Cordis' annual PMA reports or will provide to SRM any documents that will be reasonably required by SRM to fulfill its PMA annual reporting obligations. Cordis' assistance shall be reasonable and limited to documents within Cordis' possession or control.

6.5. Compliance with Law. (a) Each Party shall comply in all material respects with all applicable Laws and, except as provided for herein, shall bear its own cost and expense of complying therewith.

(b) The termination or expiration of this Agreement shall not relieve either Party of its responsibility to comply in all material respects with any statutory or regulatory requirements associated with the Licensed Products or Licensed Methods.

6.6. Handling of Customer Complaints / Medical Device Reporting / Adverse Reaction and Device Defect Reporting. (a) Each party shall reasonably cooperate fully with the other party in dealing with customer complaints concerning the Licensed Products, Licensed Methods and/or the Cordis PRECISE® Carotid Stent System and shall take reasonable action to promptly resolve and follow up with regard to such complaints.

(b) SRM shall be responsible for complying with adverse event reporting requirements for Licensed Products, including the Medical Device Reporting requirements set forth in 21 C.F.R. Part 803, as may be amended from time to time ("MDR"), or the

reporting requirements laid down in Council Directive 93/42/EEC of 14 June 1993 concerning medical devices, the applicable Laws of EU Member States and relevant European Commission guidelines, for the Licensed Product.

(c) Cordis shall provide such assistance and information as SRM reasonably requests to fulfill its adverse event reporting obligations for Licensed Products and Licensed Methods. Without limiting the generality of the foregoing, Cordis shall: (1) keep and maintain a record of all customer complaints received by Cordis relating to the Cordis PRECISE® Carotid Stent System that are required to be maintained by Cordis pursuant to 21 C.F.R. § 820.198, or comparable Laws or equivalent regulations applicable in third countries; (2) notify SRM immediately upon receipt of any information, including adverse event reports, field safety corrective actions and customer complaints, that indicates a material safety concern with respect to the Cordis PRECISE® Carotid Stent System that could have a significant effect on the safety or efficacy of any Licensed Product or Licensed Method; and (3) otherwise cooperatively undertake investigations with SRM, provide information and analysis to SRM, and conduct such follow-up activities as reasonably requested by SRM in fulfillment of SRM's obligations under this Section 6.5.

(d) Regardless of whether the complaint information was received by SRM or Cordis, SRM shall: (1) keep and maintain a record of all customer complaints relating to any Licensed Product or Licensed Method that are required to be maintained by SRM pursuant to 21 C.F.R. § 820.198 or comparable Laws or equivalent regulations applicable in third countries; (2) notify Cordis upon receipt of any information that indicates a customer complaint, field safety corrective actions or material safety concern with respect to any Licensed Product or Licensed Method that could have a significant effect on the safety or efficacy of the Cordis Technology; and (3) otherwise cooperatively undertake investigations, provide information and analysis, and conduct such follow-up activities as reasonably requested by Cordis in fulfillment of Cordis' obligations pursuant to this Section 6.6.

6.7. Removals and Corrections (Recalls). (a) If either party, is ordered by a competent authority or in good faith determines that a removal from the market, correction or other field action involving a Licensed Product, Licensed Method or the Cordis PRECISE® Carotid Stent System is warranted, such party shall immediately notify the other party in writing and shall advise such other party of the reasons underlying its determination that a removal, correction or other field action is warranted. The parties shall consult with each other as to any action to be taken in regard to such removal, correction or other field action. If after consultations: (1) SRM in good faith believes that such a removal, correction or field action should be undertaken with respect to a Licensed Product or Licensed Method, the parties shall cooperate in carrying out the same; or (2) Cordis in good faith believes that such a removal, correction or field action should be undertaken with respect to the Cordis PRECISE® Carotid Stent System, the parties shall cooperate in carrying out the same. Any

removal, correction or other field action shall be carried out within the timeline applicable in the concerned jurisdiction.

(b) SRM and Cordis shall submit to the FDA any necessary reports of removals, corrections or other field actions, as required under 21 C.F.R. Part 806, and shall be responsible for drafting any notifications of removals and corrections with respect to: (1) a Licensed Product or Licensed Method; and (2) the Cordis PRECISE® Carotid Stent System, respectively. Each party shall within a reasonable time thereafter provide the other party with a copy of all such reports as filed with the FDA, with the exception of any confidential, trade secret or proprietary information. Each party shall maintain records of all corrections or removals as required by Law, and shall promptly provide the other party with a copy of such records, with the exception of any confidential, trade secret or proprietary information.

6.8. Distribution. With respect to each country or other jurisdiction where SRM markets and/or distributes (directly or indirectly) any Licensed Product or Licensed Method, SRM agrees to (i) identify SRM as the manufacturer of the Licensed Product or the source of the Licensed Method in all filings with the appropriate Regulatory Authorities and/or correspondence as may be required, (ii) comply with all laws relating to the distribution of the Licensed Products and Licensed Methods in each such country or jurisdiction, and (iii) identify SRM as the "manufacturer" of the Licensed Products and the source of the Licensed Methods in the labels, directions for use, package inserts, marketing materials or any other materials accompanying or promoting the Licensed Products and or Licensed Methods.

7. WARRANTIES AND DISCLAIMER

7.1. SRM Representation and Warranty. SRM represents and warrants that all persons employed by, or serving as consultants to, SRM who shall have access to Cordis Technology shall have executed a written agreement requiring each such person to assign to SRM all of such person's right, title and interest in and to any intellectual property rights in SRM Technology prior to having access to Cordis Technology.

7.2. Cordis Representation and Warranty. Cordis represents and warrants that (a) all persons employed by, or serving as consultants to, Cordis who shall have access to SRM Technology shall have executed a written agreement requiring each such person to assign to Cordis all of such person's right, title and interest in and to any intellectual property rights in Cordis Technology prior to having access to SRM Technology; and

(b) all patent rights, pending or issued, that concern any aspect of the PRECISE® Carotid Stent System are included in Exhibit A to this Agreement. To the extent any such rights in existence as of the Effective Date are not included and are later discovered, such shall be added to Exhibit A at that time and shall be treated as if included in Exhibit A from the Effective Date of this Agreement.

7.3. DISCLAIMER. EXCEPT AS EXPRESSLY PROVIDED HEREIN: (i) SRM AGREES THAT THE CORDIS LICENSE TO SRM OF THE CORDIS PATENT RIGHTS ARE GRANTED "AS IS;" AND (ii) NEITHER PARTY, NOR THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES AND AFFILIATES MAKES ANY REPRESENTATIONS OR EXTENDS ANY WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NONINFRINGEMENT, TITLE, VALIDITY OF PATENT RIGHTS OR CLAIMS, ISSUED OR PENDING, AND THE ABSENCE OF LATENT OR OTHER DEFECTS, WHETHER OR NOT DISCOVERABLE.

7.4. Mutual Representations and Warranties. Each Party represents and warrants to the other that: (i) it is duly organized, validly existing, and in good standing in the jurisdiction in which it is incorporated, (ii) it has full corporate power and authority to carry on its business as presently conducted and as contemplated in this Agreement, to execute and deliver this Agreement, and to perform its obligations hereunder; (iii) the execution, delivery and performance of this Agreement have been authorized and approved by its Board of Directors and do not and will not (A) violate any law, rule, regulation, order, decree or permit which is applicable to it or (B) violate its organizational documents or any agreement to which it is a party; and (iv) this Agreement is a legal and binding obligation of it, enforceable against it in accordance with its terms, except to the extent enforceability is modified by bankruptcy, reorganization and other similar laws affecting the rights of creditors generally and by general principles of equity.

8. COMMERCIALIZATION; USE OF NAMES

8.1. Cordis. Cordis shall not use the name of SRM or any of its Affiliates, employees or agents in any advertising, promotional or sales literature, or publication without the prior written consent of SRM.

8.2. SRM. (a) SRM shall not use the names of Cordis or any of its Affiliates, employees or agents, in any advertising, promotional or sales literature or publication without the prior written consent of Cordis. SRM shall, at its own expense, be solely responsible for the manufacture, promotion, marketing, distribution and sale of each Licensed Product and Licensed Method. Unless otherwise agreed to with Cordis, SRM shall promote, market, distribute and sell each Licensed Product and Licensed Method under its own trade name and a trademark of its choice, provided, however, that such trademark shall not be confusingly similar to any trademark owned or used by Cordis or any of Cordis Affiliates.

(b) SRM shall include, on the packaging and label of each Licensed Product, a statement indicating that such Licensed Product is being made, distributed and sold by SRM pursuant to a license from Cordis. The statement shall be in both form and substance acceptable to Cordis.

(c) Notwithstanding any of the above, SRM shall be able to promote published clinical data related to the PRECISE® Carotid Stent System in conjunction with the marketing of each Licensed Product and Licensed Method subject to Cordis' review and approval, said approval not to be unreasonably withheld or delayed.

(d) Patent Marking. SRM shall affix to all of its Licensed Products made, used, sold, offered for sale or imported into the U.S. (and/or all labeling and/or packaging thereof), where appropriate and in accordance with U.S. patent law, marking notices of all of the U.S. patent rights including the Cordis Patent Rights practiced by such Licensed Product (Patent Marking Statement). Before so marking its Licensed Products, SRM will review the Patent Marking Statement with Cordis. SRM shall be solely responsible for the accuracy of the Patent Marking Statement, and provided that Cordis does not modify in any way the Patent Marking Statement proposed by SRM, SRM shall be solely liable for any damages assessed or incurred that result from an improper Patent Marking Statement.

9. CONFIDENTIALITY

9.1. Confidential Information. Both Cordis and SRM agree that all information disclosed to the other Party shall be deemed "Confidential Information" of the disclosing party. In particular, "Confidential Information" shall be deemed to include, but not be limited to, any invention disclosures, unpublished patent applications, trade secrets, information, ideas, inventions, materials, samples, processes, procedures, methods, formulations, protocols, packaging designs and materials, test data, future development plans, product launch dates, technological know-how and engineering, manufacturing, regulatory, marketing, servicing, sales, or financial matters relating to the disclosing party and its business.

9.2. Nondisclosure and Nonuse. During the Term and for five (5) years following its termination or expiration ("Confidentiality Period"), each Party shall maintain all Confidential Information in confidence and shall not disclose any Confidential Information to any third party (other than its Affiliates and sub-licensees of the licensed rights) or use any such information for any unauthorized purpose. Each Party may use such Confidential Information only to the extent required to accomplish the purposes of this Agreement. Both Parties shall take precautions as each normally takes with its own confidential and proprietary information to prevent disclosure to third parties, but no less than reasonable precautions. Notwithstanding the above, the Parties agree that SRM may reveal this Agreement (i) to a potential investor, strategic partner or in connection with a potential or actual Exit Transaction, provided that any such third party shall execute an appropriate nondisclosure agreement beforehand, and (ii) in connection with obtaining or maintaining regulatory approval for the Licensed Products and Licensed Methods and with its obligations under Section 6.4(d).

9.3. Exceptions. Both Parties agree that, notwithstanding the above, the obligations of confidentiality and nonuse shall not apply to:

9.3.1. Information that at the time of disclosure is, or thereafter becomes, generally known or available to the public, through no wrongful act or failure to act on the part of the receiving Party;

9.3.2. Information known by or in the possession of the receiving Party at the time of receiving such information from the disclosing Party, as evidenced by written records;

9.3.3. Information obtained by the receiving Party from a third-party source who is not breaching a commitment of confidentiality to the disclosing Party by revealing such information to the receiving Party, as evidenced by written records;

9.3.4. Information required to be disclosed pursuant to applicable law, regulation (including the requirements of the U.S. Securities and Exchange Commission and the listing rules of any applicable securities exchange), court order or compulsory discovery process; provided, however, each Party may only disclose information as specifically required and necessary to be disclosed, and with respect to information disclosed pursuant to a court order or compulsory discovery process, the Party required to make the disclosure shall provide notice thereof to the other Party and shall use reasonable efforts to obtain confidential treatment of the disclosed information.

9.3.5. Information SRM discloses to any regulatory agency in connection with facilitating regulatory approval or CE marking for the Licensed products and Licensed Methods under Section 6 above; provided, however, that the obligations of confidentiality and non-use shall remain applicable to any such information that is treated as confidential information by the Regulatory Authority to which it is disclosed.

9.4. Employees, Agents and Consultants. Both parties shall make diligent efforts to ensure that all employees, agents and consultants who may have access to Confidential Information of the other party, and any other third parties who might have access to Confidential Information, shall sign nondisclosure agreements consistent with the terms set forth in this Section 9. No Confidential Information shall be disclosed to any employees, agents, consultants or third parties who do not have a need to receive such information for the purposes of this Agreement.

10. RIGHT OF FIRST NEGOTIATION

10.1. (a)(i) SRM may notify Cordis, in writing from time to time, that SRM wishes to offer to Cordis a period of thirty (30) days of exclusivity to execute a term sheet for an Exit Transaction with Cordis. If Cordis and SRM do not execute such a term sheet during that period of exclusivity, then SRM would have a subsequent 180 day window in which to offer an Exit Transaction to any other party, provided that SRM may not sign a definitive agreement for an Exit Transaction with a third party unless SRM first provides Cordis with written notice of the material terms of the proposed Exit Transaction and Cordis fails to execute a definitive, fully binding term sheet acceptable to SRM to enter into an Exit Transaction with SRM within fifteen (15) business days after receiving such notice. During the 180 day window, SRM and Cordis could choose to continue their discussions, albeit on a nonexclusive basis.

(i) The procedure set forth in section 10.1(a)(i) shall be referred to as the "Right of First Negotiation."

(b) If, and only if, SRM does not execute a term sheet for an Exit Transaction with a third party during the subsequent 180 day period, then the Right of First Negotiation shall reset.

(c) Notwithstanding anything in this section 10, SRM shall have no right to execute a term sheet for an Exit Transaction with a third party without first providing the Right of First Negotiation to Cordis.

(d) The Right of First Negotiation shall terminate upon an Initial Public Offering of SRM.

11. TRANSFERABILITY

11.1 [**********]

11.2 [**********]

11.3 [**********]

11.4 [**********]

11.5 [**********]

11.6 [**********]

11.7 [**********]

12. TERMINATION

12.1. Term. The license granted to SRM and all of the obligations for the parties shall be effective as of the Effective Date of the Agreement, and shall remain in full force and effect on a country by country basis until the last to expire of the Licensed IP in such country, unless earlier terminated, either (i) by mutual written agreement of the parties or (ii) as otherwise provided for in this Agreement ("Term").

12.2. (A) Either Party may terminate the Agreement upon written notice provided to the other party at any time during the Term upon sixty (60) days' written notice ("Notice Period") if (i)the other Party commits a material breach of this obligation and such breach remains uncured for the Notice Period, or (ii) SRM fails to diligently pursue commercialization of the Licensed IP by failing to submit an IDE filing for a Licensed Product with the FDA, or commence a clinical trial to collect data to support a PMA submission on a Licensed Product, within twenty-four (24) months of the later of (1) the Effective Date of this Agreement, or (2) the date of execution of a development/manufacture/supply agreement with a Manufacturer under Section 6.1, or (iii) SRM fails to have a commercially available and approved Licensed Product in the United States within sixty (60) months of the later of (1) the Effective Date of this Agreement, or (2) the date of execution of a development/manufacture/supply agreement with a Manufacturer under Section 6.1; provided, however, that for subsections (i), (ii) and (iii), (1) during the Notice Period, the Parties shall meet and confer in good faith in order to attempt to resolve any disagreement, and (2) a Party's right to terminate the Agreement shall be tolled from the date of presentation of a Notice of Dispute under the Dispute Resolution provisions of this Agreement through actual final resolution of the Dispute; or (iv) upon the filing or institution of bankruptcy, reorganization, liquidation or receivership proceedings, termination of business operations, or upon an assignment of a substantial portion of the other Party's Technology for the benefit of creditors by the other Party, or in the event a receiver or custodian is appointed for such other Party's business, or if a substantial portion of such other Party's business is subject to attachment or similar process. In order for Cordis to terminate this Agreement pursuant to clause (i) or (ii) or (iii), Cordis must include a detailed explanation of such material breach or alleged lack of diligence in the written notice of such termination it provides to SRM.

(B) If SRM fails to timely make any payment Cordis believes is due under this Agreement, Cordis may terminate for material breach under section 12.2(A)(i), provided, however, that the written Notice Period under these circumstances shall be thirty (30) days instead of sixty (60) days. If the Agreement is terminated under this subsection, for the purpose of clarity, SRM and SRM's assignee/successor shall be precluded from selling, leasing, transferring or otherwise disposing any Licensed Products or Licensed Methods in inventory under section 12.4.

12.3. In addition, if Cordis materially breaches this Agreement, after the requisite sixty (60)-day Notice Period, SRM may elect (i) to keep the Agreement in effect in order to

continue to pursue its purpose, and (ii) to pay all further consideration due Cordis under this Agreement into an Escrow account under control of a neutral, independent third party mutually agreed to by the Parties. If SRM elects to take this path, the funds in the Escrow account shall be released by the neutral third party only upon (i) mutual agreement of the Parties, as conveyed in writing by both Parties, or (ii) to the prevailing party upon an order resulting from the arbitration proceeding under Dispute Resolution. SRM's election to proceed under this subsection 12.3 shall not derogate or otherwise adversely affect or detract from any other right, remedy, claim or cause of action one Party may have against the other Party for material breach under the terms of this Agreement.

12.4. Effects of Termination. (a) Upon termination of this Agreement for any reason: (i) nothing herein shall be construed to release either Party from any obligation that matured prior to the effective date of termination; (ii) Sections 5, 9, 12, 13, and 14 shall survive any termination according to their respective terms; and (iii) except for Confidential Information a Party reasonably needs to continue to exercise the licenses granted herein that survive termination, each Party shall immediately return all Confidential Information to the disclosing Party and shall cease and refrain from any further use of such Confidential Information, provided, however, that one copy of the other Party's Confidential Information may be retained within the Party's legal archives for purposes solely related to ensuring compliance with this Agreement until the expiration of the Confidentially Period.

(b) After the effective date of any termination of this Agreement, other than a termination for purposes of requiring a Replacement Product as set forth in Section 11 or termination for failure to make any payment due under this Agreement, SRM or its assignee/successor shall have six (6) months to sell, lease, transfer or otherwise dispose of all Licensed Products and Licensed Methods that are completed and in inventory at the time of termination. SRM shall duly account to Cordis for the disposition of such Licensed Products, Licensed Methods and inventory in its possession as of the date of termination, and shall pay any royalties due as if this Agreement remained in effect. The first such report shall be due within ninety (90) days of the termination of this Agreement, with updated reports due each subsequent ninety (90) day period thereafter until the earlier of (i) the six (6) month anniversary of the termination date, or (ii) disposition of all such Products completed and in inventory as of the date of termination.

13. DISPUTE RESOLUTION

13.1. Any controversy or claim arising out of or relating to this Agreement, including any such controversy or claim involving the parent company, subsidiaries, or affiliates under common control of any Party (a "Dispute"), if not resolved through good faith discussion between the Parties, shall first be submitted to mediation according to the Commercial Mediation Procedures of the American Arbitration Association ("AAA") (see www.adr.org). Such mediation shall be attended on behalf of each party for at

least one session by a senior business person with authority to resolve the Dispute. Any period of limitations that would otherwise expire between the initiation of a mediation and its conclusion shall be extended until 20 days after the conclusion of the mediation.

13.2. (a) Any Dispute that cannot be resolved by mediation within 45 days of notice by one Party to the other of the existence of a Dispute (unless the parties agree to extend that period) shall be resolved by arbitration in accordance with the Commercial Arbitration Rules of the AAA ("AAA Rules"; see www.adr.org) and the Federal Arbitration Act, 9 U.S.C. §1 et seq.. The arbitration shall be conducted in New Jersey, by one arbitrator appointed in accordance with the AAA Rules.

(b) The arbitrator shall follow the ICDR Guidelines for Arbitrators Concerning Exchanges of Information in managing and ruling on requests for discovery. The arbitrator, by accepting appointment, undertakes to exert her or his best efforts to conduct the process so as to issue an award within eight (8) months of his or her appointment, but failure to meet that timetable shall not affect the validity of the award. The arbitrator shall decide the Dispute in accordance with the substantive law of New Jersey. The arbitrator may not award punitive or consequential damages, nor may the arbitrator apply any multiplier to any award of actual damages, except as may be required by statute. The award of the arbitrator may be entered in any court of competent jurisdiction. The arbitrator shall not award either Party attorneys fees or costs.

(c) This manner of dispute resolution (mediation, followed by arbitration) shall be the exclusive method of resolving Disputes between the Parties; provided, however, that in the event of a Party's violation of any of its obligations under Section 9 (Confidentiality) of this Agreement, (i) the other Party may seek preliminary and permanent injunctive relief relating to such violation in any federal or state court sitting in the State of New Jersey without having to prove actual damages or immediate or irreparable harm or to post a bond, and (ii) the Parties hereby consent to the jurisdiction of such courts in such State and waive any defense of inconvenient forum for any such action brought in any such venue.

(d) EACH PARTY UNDERSTANDS AND AGREES THAT THE DISPUTE RESOLUTION PROVISIONS (MEDIATION, FOLLOWED BY ARBITRATION) OF THIS SECTION 13 CONSTITUTE A WAIVER OF ITS RIGHT TO A JURY TRIAL.

14. GENERAL

14.1. Integrated Agreement. This Agreement (including Appendix A which is incorporated herein by reference) constitutes the complete and exclusive statement of the agreement between the Parties, and supersedes all prior agreements, proposals,

negotiations and communications between the Parties, both oral and written, regarding the subject matter hereof.

14.2. Waiver or Modification. No waiver, alteration or modification of any of the provisions of this Agreement shall be binding unless made in writing and signed by each of the Parties hereto.

14.3. Notices. All notices, requests or communications to be given under this Agreement shall be in writing and shall be deemed duly given if sent by prepaid registered or certified mail, return receipt requested, or by prepaid overnight courier service, or by facsimile, with confirmed transmission receipt, to the addresses set forth immediately below (or to such other addresses as the Parties may designate by notice given in accordance with this provision):

If to Cordis:

Cordis Corporation
430 Route 22 East
Bridgewater, NJ 08807-0908
Attn: Vice President, Business Development
Fax: 908 541 4482

If to SRM:

Silk Road Medical, Inc.
735 North Pastoria Avenue
Sunnyvale, California 94085
Attn: William Worthen, President & Chief Executive Officer
Fax: (408) 720-9013

All such notices if properly addressed shall be effective when received.

14.4. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of New Jersey, without regard to conflict of laws principles, and as necessary the laws of the United States of America.

14.5. Failure to Exercise Remedy. If either Party fails to enforce any term of this Agreement or fails to exercise any remedy, such failure to enforce or exercise on that occasion shall not prevent enforcement or exercise on any other occasion.

14.6. Cumulative Remedies. All rights and remedies, whether conferred by this Agreement or by any other instrument or by law shall be cumulative, and may be exercised singularly or concurrently.

14.7. Assignment. (a) Cordis may not assign or transfer this Agreement, in whole or in part, without first receiving the prior written consent of SRM, such consent not to be unreasonably withheld.

(b) SRM may not assign or transfer this Agreement, in whole or in part, other than in connection with an Exit Transaction according to the terms of this Agreement.

(c) Any attempted assignment or transfer in derogation of the foregoing shall be null and void.

(d) Subject to the foregoing, this Agreement shall be binding on, and inure to the benefit of, the Parties hereto, and their respective successors and permitted assigns.

14.8. Independent Contractors. The Parties agree that, in the performance of this Agreement, they are and shall be independent contractors. Nothing herein shall be construed to constitute either Party as the agent of the other Party for any purpose whatsoever other than as expressly permitted by this Agreement, and neither Party shall bind or attempt to bind the other Party to any contract or the performance of any obligation or represent to any third party that it has any right to enter into any binding obligation on the other Party's behalf.

14.9. Force Majeure. No Party shall be held liable or responsible to any other Party, nor be deemed to have defaulted under, or breached, this Agreement for failure or delay in fulfilling or performing any term of this Agreement to the extent, and for so long as, such failure or delay is caused by, or results from, causes beyond the reasonable control of the affected Party, including but not limited to fire, floods, embargoes, war, terrorism, acts of war (whether war be declared or not), insurrections, riots, civil commotions, strikes, lockouts or other labor disturbances, acts of God or acts, omissions or delays in acting by any governmental authority.

14.10. Invalidity. If any provision of this Agreement is held invalid by any law, rule, order, or regulation of any government or by the final determination of any court of competent jurisdiction, such invalidity shall not affect the enforceability of any other provisions, and any such provision held invalid shall be interpreted or reformed so as to best accomplish the objectives of the parties to this Agreement within the limits of applicable law or applicable court decision.

14.11. Drafting. Each Party represents that it participated equally with the other in the drafting of this Agreement. This Agreement shall be interpreted without regard to any principle of construction regarding the drafting, authorship or revision thereof.

14.12. Counterparts. This Agreement may be executed in one or more counterparts, each of which when executed shall be deemed to be an original but all of which taken together shall constitute one and the same agreement.

IN WITNESS WHEREOF, the Parties have executed this Agreement by their duly authorized representatives, to be effective as of the Effective Date.

CORDIS CORPORATION		**SILK ROAD MEDICAL, INC.**	
By:	/s/ Raymond Suehnholz	By:	/s/ William Worthen
Print:	Raymond Suehnholz	Print:	William Worthen
Title:	VP Global Strategic Marketing	Title:	President & Chief Executive Officer

APPENDIX A
CORDIS PATENT RIGHTS

US Patent	Title	Related OUS issued Family members
US6859986B2	Method system for loading a self-expanding stent	EP1462070B1; JP4405282B2
US6743219B1	Delivery apparatus for a self-expanding stent	AU777433B2 ; AU780428B2; EP1181906B1
US6773446B1	Delivery apparatus for a self-expanding stent	AU777433B2; AU780428B2; EP1181906B1
US6942688B2	Stent delivery system having delivery catheter member with a clear transition zone	EP1129674B1
US6019778A	Delivery apparatus for a self-expanding stent	AU736076B2; EP0941716B1
US6425898B1	Delivery apparatus for a self-expanding stent	AU736076B2; AU758842B2 ; JP4393655B2; EP0941716B1; EP1025813B1
US6129755A	Intravascular stent having an improved strut configuration	AU740593B2; EP0928605B1

QUALITY ASSURANCE AGREEMENT

THIS QUALITY ASSURANCE AGREEMENT (this "**Agreement**") is entered into and made effective this _4th day of _May __, 2015 (the "**Effective Date**") by and between Silk Road Medical (collectively "**Silk Road Medical**") and Accellent, Inc. d/b/a Lake Region Medical and affiliates ("**Lake Region**").

WHEREAS, Silk Road Medical and Lake Region desire to address quality assurance issues relating to the design, manufacture, regulatory responsibility, sale and non-exclusive distribution of certain products, which Silk Road Medical may purchase from Lake Region (the "**Product**" or the "**Products**") as set forth herein.

NOW, THEREFORE, in consideration of the mutual covenants and agreements set forth below and for other good and valuable consideration of which receipt is acknowledged, the parties agree as follows:

1. APPLICATION.

1.1 MATTERS NOT COVERED IN THE SPECIFICATION. For the purposes of this Agreement, Products and Specifications are set forth in Exhibit A attached to this Agreement. Purchase Orders for the non-exclusive sale and distribution of the Products under this Agreement will be made on Silk Road Medical's standard purchase order form. Lake Region shall acknowledge the purchase orders by sending Silk Road Medical its standard order acknowledgement form. If there are any differences or inconsistencies between the terms of the purchase order and the terms of this Agreement, or additional duties on, or liabilities to Lake Region, the terms of this Agreement shall govern and any such duties or liabilities shall be inapplicable. In the event that an issue should arise which is not contemplated by either this Agreement or the purchase order, or the order acknowledgement form, the parties agree that they will attempt to resolve the matter by mutual agreement. Any such subsequent agreement, which shall be in writing and signed by all of the parties hereto, shall automatically become part of this Agreement. Such agreement shall be appended to this Agreement and made part of it for future reference.

1.2 CHANGE OF EACH ITEM. Lake Region agrees to notify and seek approval in advance from Silk Road Medical of any changes to material type or manufacturing site; and any significant changes to product specifications, production process or equipment, quality assurance procedures or sources of materials. Significant changes are defined as those which have the potential to affect the performance, safety, effectiveness or regulatory compliance of the Products supplied non-exclusively to Silk Road Medical.

1.3 SHIPMENTS. Each shipment of Products to Silk Road Medical will be accompanied by a Certificate of Conformance to ensure that Lake Region has complied with the specifications. At a minimum, the Certificate of Conformance will contain for each Product shipped: Part number, Lot number, Description, Quantity, and Purchase Order number. Silk Road Medical will notify Lake Region within thirty (30) days after receipt of the Products if any of the Products fail to meet Specifications. Lake Region may, at its option and at its expense, reinspect the Product at Silk Road Medical's premises

or perform the reinspection at its own facilities. Silk Road Medical will return and Lake Region will promptly replace the Products, which, upon reinspection by Lake Region, fail to meet specifications.

1.4 PACKAGING. The Products will be suitably packed for transit.

1.5 LABELING. Lake Region Medical is responsible for Product user information and labeling format, with assistance from Silk Road Medical regarding branding and format. Lake Region is responsible for procuring, printing and variable content accuracy for each lot of Product produced, labeled and shipped. User information and the labeling shall correspond with applicable laws and requirements. Lake Region Medical shall be solely responsible for all final decisions relating to user information and labeling of US Products. Silk Road Medical shall be solely responsible for all final decisions relating to user information and labeling of EU Products. The regulatory process owner (either Lake Region Medical or Silk Road Medical) shall be solely responsible for all final decisions relating to user information and labeling of all other worldwide regions.

1.6 TRACEABILITY. Lake Region will maintain traceability to the raw material lots used in the fabrication of the Product for a minimum period of 25 years. Lake Region will retain Device History Records for a minimum period of 25 years.

1.7 RAW MATERIALS. The Products listed in Exhibit A do not contain materials derived from animal or human tissue or medical substances that do not meet the EU inactivation requirements.

2. CONFIDENTIAL INFORMATION.

The parties acknowledge that before and during the Term, the parties have provided and will continue to provide the other with certain proprietary and confidential information, including, without limitation, prices, data, designs, plans, drawings, technical information, marketing strategies and competitive information ("**Confidential Information**"). Each agrees that it will not, during the Term, or after, for any reason, publish or disclose to any third party, without the advance, express written authorization from the other party, any such Confidential Information, nor, except to the extent such Confidential Information is necessary in performance of this Agreement, will it use such Confidential Information. Confidential Information does not include information which was known to the receiving party prior to receipt from the disclosing party or was independently developed by receiving party without access to the disclosing party's information, or has become part of the public domain, or was obtained by the receiving party from a third party under no obligation of confidentiality to the disclosing party. The requirements of this section terminate five (5) years after the termination or expiration of this Agreement or any renewal of this Agreement. Upon termination or expiration of this Agreement, and upon request of the other party, all materials and copies of Confidential Information shall be immediately returned to the other party, except that the receiving party may retain one archival copy for purposes of monitoring compliance of this Agreement.

3. COMPLAINTS / FAILURE ANALYSIS.

Lake Region will be the responsible legal manufacturer in the United States and will file all reports required by FDA's Medical Device Reporting ("**MDR**"). Lake Region will have primary responsibility for managing all US originating complaints using the Lake Region Medical complaint management process.

Silk Road Medical will be the responsible legal Manufacturer in the European Union and will file all reports required by Medical Device Directive's Vigilance Reporting regulations. Silk Road Medical shall contract with an European Authorized Representative as listed on the Product labeling. Silk Road Medical will have primary responsibility for managing all EU originating complaints using the Silk Road Medical complaint management process.

The regulatory process owner for all other regions of the world shall be mutually agreed in writing and shall be responsible for medical device reporting and complaint management for other worldwide regions.

Silk Road Medical will maintain and manage a file of all complaints received by Silk Road Medical with respect to the Products. Upon Silk Road Medical's receipt of any Silk Road Medical complaint alleging that any Product is defective, Silk Road Medical will promptly send to Lake Region's complaint analysis department a copy of such complaint. If the allegedly defective Product is returned to Silk Road Medical by its customer, Silk Road Medical will perform an initial internal failure analysis and, if a preliminary determination is made that the defect is possibly related to the device, may thereafter notify and forward the allegedly defective Product to Lake Region's complaint analysis department and require Lake Region to perform an independent failure analysis of the returned Product(s).

Lake Region and Silk Road Medical will cooperate with each other in investigating complaints, sharing information and submitting any report required including providing duplicate copies of all such failure analysis reports along with full and complete information on the failure. If Silk Road Medical provides either allegedly defective Products or samples of Products suspected to have problems or defects, Lake Region shall, upon written request, return such Products to Silk Road Medical after Lake Region has performed the necessary analysis. Lake Region may, at its option and at its expense reinspect any unused Product believed to be defective or non-compliant at Silk Road Medical's premises or perform the reinspection at its own facilities. Silk Road Medical will return and Lake Region will promptly replace the Products, which, upon reinspection by Lake Region, fail to meet Specifications.

4. QUALITY SURVEYS / ON-SITE AUDITS.

Lake Region will allow Silk Road Medical to perform reasonable quality assurance inspections and audits of non-proprietary areas of Lake Region's facility, but no more than two (2) per year, during regular business hours and upon reasonable advance written notice to Lake Region. Any inspector who performs such inspection or audits must sign a Lake Region confidentiality agreement prior to being admitted on Lake Region's premises or reviewing any of Lake Region's documentation or property. Lake Region will use commercially reasonable efforts to cooperate with Silk Road Medical's inspector and will provide Silk Road Medical access to Lake Region's non-proprietary documents that are

reasonably required by Silk Road Medical to properly perform any such inspection or audit. In the event that any regulatory authority with legal responsibility for the Product is required to perform an unannounced audit access shall be granted.

5. REGULATORY.

LAKE REGION agrees to comply with the current revisions of:

- USA 21 CFR 820 Quality System Regulations
- ISO 13485

LAKE REGION will obtain and maintain product regulatory clearances in the USA, including FDA 510k clearance. SILK ROAD MEDICAL will obtain and maintain product regulatory clearances in the EU, including EU CE mark. Responsibility for required regulatory clearances in any other territories shall be mutually agreed in writing. LAKE REGION shall be responsible for all activities required of the legal Manufacturer in the USA and Contract Manufacturer in the European Union. Silk Road Medical shall be responsible for all activities required of the legal Manufacturer in the European Union.

LAKE REGION will notify Silk Road Medical in a timely manner if there is a change in status of its quality or product certifications.

LAKE REGION agrees that Silk Road Medical and entities with regulatory oversight of Silk Road Medical's products (e.g., EU Notified Body, EU Competent Authority, or US FDA) may examine the non-proprietary portions of the technical documentation associated with the Product, and may audit the non-proprietary portions of LAKE REGION and its subcontractor's manufacturing facilities, with reasonable notification and justification per Section 4 of this Agreement.

The following table identifies primary record responsibilities associated specifically with the Product. Retention periods for the documents will be per the respective quality record procedures.

ASPECT	Lake Region	Silk Road Medical
Technical Records	ü	ü
Design Specifications	ü	ü
Material / Component Records	ü	
Lot History Records pre-sterile	ü	
Lot History Records post-sterile	ü	
Manufacturing Process and Instructions	ü	
Sterilization Process and Records	ü	
In-Process and Final Product Test Records pre-sterile	ü	
In-Process and Final Product Test	ü	
Records post-sterile		
Subcontractors of Silk Road Medical		ü
Subcontractors of Lake Region	ü	
USA 510k clearances	ü	
EU Technical File		ü
Silk Road Medical Shipment Records		ü
Product and Label Specifications	ü	ü

6. WARRANTIES.

6.1 QUALITY SYSTEM REGULATION. Lake Region warrants that it will manufacture the Product in accordance with current Quality System Regulations ("**QSR**") for medical devices as mandated by the FDA and in compliance with International Standard ISO 13485 and with any and all other applicable federal, state and local laws, rules, and regulations.

6.2 SPECIFICATIONS. Lake Region warrants that the Product will be manufactured in conformance with the specifications and shall be free from defects in materials and workmanship during the Warranty Period only. During the Warranty Period only, Lake Region will replace or issue a credit for any Product found to be defective if such defective condition has been caused solely and directly by Lake Region's failure to meet specifications and was not the result of misuse, reuse, or reprocessing of the Product or any other negligence by Silk Road Medical or any third party. The "Warranty Period" is thirty-six (36) months from the date of shipment of each Product to Silk Road Medical for single-pack sterile Product. The parties acknowledge and agree that the replacement of or credit for defective Product is Silk Road Medical's exclusive remedy under this Agreement for breach of Lake Region's warranties in this Article 6.

6.3 ADULTERATION OR MISBRANDING. Lake Region warrants that the Product is not adulterated or misbranded within the meaning of the Food, Drug and Cosmetic Act.

6.4 DISCLAIMER OF WARRANTIES. LAKE REGION DISCLAIMS THE MAKING OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, IN PARTICULAR ANY IMPLIED WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR USE, OR OF NON-INFRINGEMENT OF PATENTS OR ANY OTHER INTELLECTUAL PROPERTY WITH RESPECT TO THE PRODUCTS, EXCEPT AS SPECIFICALLY MADE ABOVE.

7. TRADEMARKS.

Silk Road Medical shall acquire no right, title or interest in Lake Region's trademarks, other than as expressly set forth herein, and Silk Road Medical shall not use any Lake Region trademarks as part of Silk Road Medical's corporate name or tradename or permit any third party to do so without the prior written consent of Lake Region. Silk Road Medical acknowledges Lake Region's proprietary rights in and to Lake Region's trademarks, and Silk Road Medical waives in favor of Lake Region all rights to any trademarks, tradenames and logo types now or hereafter originated by Lake Region. Silk Road Medical shall not adopt, use or register any words, phrases or symbols, which are identical to or confusingly similar to any of Lake Region's trademarks. Upon termination of this Agreement, Silk Road Medical shall cease using any Lake Region trademarks.

8. COMMERCIAL POLICY.

Silk Road Medical shall, in performing its obligations under this Agreement, comply with all applicable existing and future laws, regulations, and acts of any applicable government, including the United States and with the highest ethical standards of business conduct, including without limitation the United States Foreign Corrupt Practices Act of 1977 as amended and the Anti-Boycott Laws, including without limitation the Export Administration Act ("**EAA**"), Export Administration Regulations (15 CFR Parts 730-773) ("**EAR**") and the Ribicoff Amendment to the 1976 Tax Reform Act ("**TRA**"). Further, Silk Road Medical shall take no action on behalf of Lake Region, which would cause Lake Region to be in violation of applicable law. Specifically, Silk Road Medical agrees not to make, directly or indirectly, any offer, payment, promise to pay or authorization of the payment of any money, gift or other thing of value to any person who is an official, agent, employee or representative of any government (including any employee of any state-owned hospital or other state-owned enterprise), including the United States or of any ministry, agency, office, department or other instrumentality thereof, for the purpose of obtaining or retaining any business or securing any other business or regulatory advantage of any kind whatsoever for or on behalf of itself or for or on behalf of Lake Region.

9. RECALLS.

If either Silk Road Medical or Lake Region is required by any regulatory agency, or Silk Road Medical determines, after consultation with Lake Region and based on its good faith and independent reasonable business judgment, to recall any of the Products, the non-recalling party will cooperate and assist in locating and retrieving the Products to be recalled and providing applicable documentation to

the recalling party as reasonably necessary. In the event such recall is directly and solely due to Lake Region's failure to meet Specifications and not due to misuse, reuse or reprocessing of the Product or other negligence by Silk Road Medical or any third party, Lake Region shall replace or issue a credit for any such defective Product.

10. INDEMNIFICATION / LIMITATION OF LIABILITY / INSURANCE.

10.1 PRODUCT INDEMNIFICATION. Silk Road Medical will defend, indemnify, and hold Lake Region harmless from and against any and all liabilities, claims and demands for injury to or death of persons or damage to property arising out of or in connection with the sale, use or application of any Product

10.2 LIMITATION OF LIABILITY. IN NO EVENT WILL SILK ROAD MEDICAL OR LAKE REGION BE LIABLE TO THE OTHER FOR ANY INDIRECT, INCIDENTAL, SPECIAL, PUNITIVE, OR CONSEQUENTIAL DAMAGES ARISING OUT OF ITS PERFORMANCE OR NONPERFORMANCE OF THIS AGREEMENT, EXCEPT FOR DAMAGES THAT RESULT FROM A BREACH OF ARTICLE 2 ABOVE OR AS EXPRESSLY STATED TO THE CONTRARY IN THIS AGREEMENT.

10.3 PRODUCT LIABILITY INSURANCE. Each party will, during the Term, the Renewal Tenn, if any, and for six (6) years thereafter maintain product liability insurance coverage in the minimum amount of One Million Dollars ($1,000,000) per occurrence and Two Million Dollars ($2,000,000) in the aggregate and provide the other party a copy of the certificate evidencing such coverage.

11. TERM.

11.1 This Agreement shall be effective for three (3) years, commencing on the Effective Date (the "**Term**").

11.2 The term is automatically renewed for one additional one (1) year period, unless either party gives the other written notice that it will not renew, such notice to be given at least 90 days prior to the expiration of the Term.

12. TERMINATION.

12.1 This Agreement may be terminated by either party if:

(a) the other party is in material breach of any material term or obligation of this Agreement and such material breach is not cured within sixty (60) days after receipt of written notice of such material breach from the terminating party; or

(b) the other party is adjudicated insolvent, has a receiver of its assets or property appointed, or files or has filed against it a petition in bankruptcy and such breach is not cured within sixty (60) days of such event; or

(c) the other party ceases or threatens to cease to carry on all or any substantial part of its business that is relevant to this Agreement.

12.2 The parties' obligations pursuant to Articles 2, 6, 7, 8, 9, 10, I 3, and 17 shall survive termination or expiration of this Agreement.

12.3 Any termination shall be without prejudice to any other right or remedy afforded to either party under this Agreement and will not affect any rights or obligations, which have arisen prior to the date of such termination.

13. DISPUTE RESOLUTION AND GOVERNING LAW.

13.1 The parties agree to attempt in good faith to resolve any dispute arising out of or relating to this Agreement promptly by negotiations as follows:

(a) Either party may give the other party written notice of any dispute not resolved in the normal course of business. Executives of each of the parties will meet at a mutually acceptable time and place within thirty (30) days after delivery of the notice, and thereafter for as long as they reasonably deem necessary. The purpose of this meeting is for the executives to exchange relevant information and to attempt to resolve the dispute.

(b) If the matter has not been resolved by the executives within forty-five (45) days of the notice, or if the parties fail to meet within the thirty (30) day period, the dispute will be resolved by arbitration as set forth below.

13.2 Any controversy or claim arising out of or relating to this Agreement or the validity, inducement, enforcement, or breach thereof, which is not resolved as set forth in Section 13.1 shall be resolved by binding arbitration before a single arbitrator in accordance with the International Arbitration Rules of the American Arbitration Association ("**AAA**") then pertaining, except where those rules conflict with this provision, in which case this provision controls. The parties hereby consent to the jurisdiction of the federal district court for the district in which the arbitration is held for the enforcement of this provision and the entry of judgment on any award rendered hereunder. Should such court for any reason lack jurisdiction, any court with jurisdiction shall enforce this clause and enter judgment on any award. The arbitrator shall be an attorney who has at least 15 years of experience with a law firm or corporate law department of over 10 lawyers or was a judge of a court of general jurisdiction. The arbitration shall be held in Minneapolis, Minnesota and in rendering the award the arbitrator must apply the substantive law of Minnesota (except where that law conflicts with this clause), except that the interpretation and enforcement of this arbitration provision shall be governed by the Federal Arbitration Act. The arbitrator shall be neutral, independent, disinterested, impartial and shall abide by The Code of Ethics for Arbitrators in Commercial Disputes approved by the AAA. Within 45 days of initiation of arbitration, the parties shall reach agreement upon and thereafter follow procedures assuring that the arbitration will be concluded and the award rendered within no more than eight months from selection of the arbitrator. Failing such agreement, the AAA will design and the parties will follow procedures that meet such a time schedule. Each party has the right before or, if the arbitrator cannot hear the matter within an acceptable period, during the arbitration to seek and obtain from the appropriate

court provisional remedies such as attachment, preliminary injunction, replevin, etc., to avoid irreparable harm, maintain the status quo or preserve the subject matter of the arbitration. THE ARBITRATOR SHALL NOT AWARD ANY PARTY PUNITIVE, EXEMPLARY, MULTIPLIED OR CONSEQUENTIAL DAMAGES, AND EACH PARTY HEREBY IRREVOCABLY WAIVES ANY RIGHT TO SEEK SUCH DAMAGES. NO PARTY MAY SEEK OR OBTAIN PREJUDGMENT INTEREST OR ATTORNEYS' FEES OR COSTS.

13.3 This Agreement shall be governed by, and interpreted and construed in accordance with the laws of the State of Minnesota, USA, excluding: (a) the conflict of law provisions now or hereafter in force; and (b) the provisions of the United Nations Convention on Contracts for the International Sale of Goods dated April 11, 1980.

14. ASSIGNMENT.

Neither party may transfer or assign this Agreement or any of their respective rights or obligations hereunder to any third party, either directly or by operation of law, without the prior written consent of the other party, which consent will not be unreasonably withheld, except that no consent will be required if either party:

(a) assigns this Agreement to its parent or affiliate, a successor to all or substantially all of its business; or

(b) transfers this Agreement by operation of law as part of a sale of its stock or a merger, consolidation or restructuring.

15. FORCE MAJEURE.

Neither party will be deemed to be in default or to be liable to the other party for any delay in performance or for non-performance caused by circumstances beyond the reasonable control of such party including, but not limited to, acts of God, explosion, fire, flood, war, whether declared or not, accident, strike or other labor disturbance, sabotage, order or decree of any court or action of any governmental authority or other causes whether similar or dissimilar to those specified.

16. NOTICES.

Any notice to be given pursuant to this Agreement must be in writing and sent by certified or registered mail, return receipt requested, postage prepaid, by Federal Express or any other overnight mail, or by facsimile communication to the other party at the following addresses (or as such other address as either party may designate with notice to be effective as of the time received):

If to Silk Road Medical: Attention: Ric Ruedy
Executive Vice-President, RA/CA/QA
Silk Road Medical, Inc.
735 North Pastoria
Sunnyvale, CA 94085
(408) 720-9002
Fax: (408) 720-9013

If to Lake Region: Attention: John Harris

Accellent Inc.
d/b/a Lake Region Medical
340 Lake Hazeltine Drive
Chaska, Minnesota 55318 USA

17. COMPLETE AGREEMENT AND MODIFICATION

This Agreement contains the complete agreement between the parties relating to the Product(s) and there are no other promises, representations, inducements, terms or conditions, except as herein provided. This Agreement supersedes and terminates all prior agreements, whether oral or written, relating to the Product(s, and any actual or alleged promises, representations, inducements, terms, conditions or agreements relating to the Product(s) which are not expressly made a part of this Agreement are invalid, void and unenforceable. This Agreement may be modified only by written agreement signed by duly authorized officers of each party.

SILK ROAD MEDICAL

By:	/s/ Richard M. Ruedy
	(Signature)
	Richard M. Ruedy
	(Printed Name)
Its:	Exec. VP, RA/CA/QA
	(Position/Title)
Dated:	May 4, 2015

ACCELLENT, INC.
D/B/A LAKE REGION MEDICAL

By:	/s/ Jim Klosterman
	(Signature)
	Jim Klosterman
	(Printed Name)
Its:	Sr. Director, Quality and Regulatory
	(Position/Title)
Dated:	May 4, 2015

Exhibit A

Lake Region part number	Lake Region part name	Silk Road Medical part number	Silk Road Medical part name
MOD 1204-000- 211	Rapidwire Plus ST 95-014	CS 116876	ENROUTE .014” Guidewire

AMENDED AND RESTATED MANUFACTURING AND SUPPLY AGREEMENT

This Amended and Restated Manufacturing and Supply Agreement (this "**Agreement**") is entered into as of January 10, 2018 (the "**Amendment Effective Date**"), by and between Silk Road Medical, Inc., a corporation duly organized and existing under the laws of the State of Delaware and having its principal office at 735 North Pastoria Avenue, Sunnyvale, CA 94085 ("**Silk Road Medical**"), and Galt Medical Corporation, a Texas corporation having a place of business at 2220 Merritt Drive, Garland, Texas 75041 ("**Supplier**"), and amends and restates in its entirety that certain Manufacturing and Supply Agreement, effective as of September 18, 2014 (the "**Effective Date**"), by and between the Parties (the "**Original Agreement**"). Each of Silk Road Medical and Supplier is referred to herein by name or as a "**Party**," and, collectively, as the "**Parties**."

RECITALS

WHEREAS, Supplier manufactures medical devices and products; and

WHEREAS, Silk Road Medical desires to have manufactured certain micro-puncture kit products (as further described below, the "**Products**") with certain specifications (as further described below, the "**Specifications**"), as generally set forth in **Attachment A**;

WHEREAS, the Parties hereto wish to set forth in this Agreement the terms and conditions under which Silk Road Medical shall purchase Products from Supplier and Supplier shall manufacture, sell and deliver Products to Silk Road Medical for commercial distribution; and

WHEREAS, the Parties further wish to amend certain terms of the Original Agreement, and to restate the Original Agreement, as so amended, in its entirety in this Agreement, all on the terms and conditions set forth in this Agreement.

NOW, THEREFORE, in consideration of the mutual promises, and of the representations, warranties, covenants and agreements contained herein, the Parties agree as follows:

1. <u>Definitions</u>.

For purposes of this Agreement, the following capitalized terms shall have the following meanings:

1.1 "Adverse Event" means any adverse health event to which a Product has or may have contributed. The term is generally limited to those events that would be reportable to Competent Authorities.

(a) For the European Union, adverse events are defined as "incidents". Incidents are defined as any malfunction or deterioration in the characteristics and/or performance of a device, as well as any inadequacy in the labeling or the instructions for us which, directly or indirectly, might lead to or might have led to the death of a patient, or user or of other persons or to a serious deterioration in their state of health.

(b) For the United States, adverse events are defined as Medical Device Reports (MDRs). MDRs are events that manufacturers become aware of that reasonably suggest that one of their marketed devices may have caused or contributed to a death or serious injury, or has malfunctioned and the malfunction of the device or a similar device that they market would be likely to cause or contribute to a death or serious injury if the malfunction where to recur.

1.2 "**Affiliate"** means, with respect to a Party, each and every corporation or other business entity controlled by, controlling or under common control with such Party. For the purposes of this definition, "control" shall, in the context of a corporation, mean direct or indirect beneficial ownership of at least fifty percent (50%) of the shares entitled to vote for members of the Board of Directors of such corporation, and, in the context of any other business entity, shall mean the right to exercise similar management and control of such entity.

1.3 "Applicable Laws" means all applicable laws, rules, regulations and guidelines that may apply to the development, manufacturing, marketing and/or sale of the Products or the performance of either Party's obligations under this Agreement including laws, regulations and guidelines governing the import, export, development, manufacturing, marketing, distribution and sale of the Products and including all current good manufacturing practices standards ("**cGMP**") or guidelines promulgated by Competent Authorities including the Federal Food, Drug and Cosmetic Act and trade association guidelines.

1.4 "Competent Authorities" means the entities responsible for the regulation of medical devices intended for use in treating humans, and shall include the United States Food and Drug Administration ("**FDA**").

1.5 "Intellectual Property Rights" means any and all drawings, specifications, samples, models, processes, procedures, instructions, technology, applied development engineering data, reports, and all other technical or commercial information, data, and documents of any kind whatsoever and all forms of protection afforded by law to inventions, models, designs or technical information, and applications therefore or which otherwise arises or is enforceable under the laws of the United States or other jurisdiction including, but not limited to, any and all patents (including reissues, divisions, continuations and extensions thereof), patent registrations, utility models, trademarks, trade secrets, registered and unregistered designs including mask works, copyrights, and moral rights.

1.6 "**Notified Body**" means an entity licensed, authorized or approved by an applicable Competent Authority to assess and certify the conformity of a medical device or product with Applicable Laws.

1.7 "**Products**" means Supplier's micro-puncture kit products listed in **Attachment A**, as manufactured and supplied by Supplier from time to time in accordance with the Specifications.

1.8 "**Purchase Order"** means any written or electronic purchase order issued by Silk Road Medical to Supplier for a Product, each of which shall be governed by the terms of this Agreement. All Purchase Orders, acceptances and other writings or electronic communications between the Parties shall be governed by this Agreement and the terms and conditions noted in any Quotation provided by Supplier. In case of conflict, the following order of precedence will prevail: a) this Supply Agreement; b) this Supply Agreement's **Attachments**; c) any Quotation(s) provided by Supplier; d) individual Purchase Orders; and e) the Specifications and related documents specifically incorporated herein by reference.

1.9 "**Quotation**" means, with respect to a Purchase Order, any written quotation provided in advance by Supplier to Silk Road Medical specific to such Purchase Order.

1.10 "Specifications" means Supplier's functional specifications, descriptions, drawings and other requirements as generally specified in **Attachment A**, including any mutually agreed amendments thereof.

2. Manufacture and Purchase.

2.1 Agreement to Manufacture and Purchase. Supplier hereby agrees to manufacture and sell the Products to Silk Road Medical, and Silk Road Medical agrees to purchase the Products from Supplier, all in accordance with the terms and conditions of this Agreement. Supplier will manufacture the Products in accordance with the Specifications set forth in **Attachment A**. Supplier shall notify Silk

Road Medical, in writing, of any proposed changes in raw materials, components, design or processes at least one hundred twenty (120) days prior to any such actions.

2.2 Quality Control and Assurance. Supplier shall manufacture the Products in accordance with the Specifications, Applicable Laws and with proper standards of quality control and quality assurance. Supplier shall permit Silk Road Medical or its designated representative to perform such reasonable audits and inspections as may be requested by Silk Road Medical of the facilities, procedures and records that are relevant to Supplier's manufacturing of the Products, and to the extent reasonably obtainable by Supplier, of facilities, procedures and records that are relevant to such reasonable audits or inspections of unaffiliated parties with responsibility for testing, analyzing, labeling or packaging the Products. Supplier shall maintain such records for a period of no less than seven (7) years following the manufacture of any particular Product. Supplier shall notify Silk Road Medical immediately upon receipt of all warning letters, 483s and other correspondence with the Competent Authority, Notified Body or other governmental authority related to the Product.

2.3 Product Recall. Silk Road Medical and Supplier shall each notify the other Party promptly if any Products are the subject of a recall, market withdrawal or other correction, and the Parties shall cooperate in the handling and disposition of such recall, market withdrawal, advisory notice or correction. Supplier shall bear the cost of all recalls, market withdrawals, advisory notices or corrections of the Products, up to a maximum cost not to exceed the unit price(s) Silk Road Medical has paid for the Products multiplied by the number of units subject to the product recall, as well as all shipping costs therefor.

2.4 Adverse Event Reporting. Each Party shall advise the other Party, by telephone, e-mail or as otherwise provided in Section 12.4 within such time as is required to comply with Applicable Laws, after it becomes aware of any Adverse Event involving the Products. Such advising Party shall provide the other Party with a written report, delivered as provided in Section 12.4, stating the full facts known to it regarding the Adverse Event, including but not limited to customer name, address, telephone number, batch, lot and serial numbers, as required by Applicable Laws. Except as otherwise required by Applicable Laws, as between the Parties, Supplier shall be responsible for investigating all Adverse Events and reporting to Competent Authorities and other governmental authorities.

2.5 Customer Complaints. As between the Parties, Supplier shall be responsible for handling all customer complaints relating to the Products that relate to the manufacturing or design of the product. Notwithstanding the foregoing, each Party shall advise the other Party, by telephone or e-mail within such time as is required to comply with Applicable Laws, after it becomes aware of any customer complaint involving the Products. Supplier agrees to cooperate and assist Silk Road Medical in investigating such complaints and in providing an appropriate response.

3. Prices.

3.1 Prices. The prices for the Products shall be as set forth on **Attachment B** and shall apply to all Purchase Orders for Products sold to Silk Road Medical during the term, unless otherwise agreed. In the event of a change in Specifications resulting from a request by Silk Road Medical, which request is agreed to by Supplier, the Parties shall negotiate in good faith to reach agreement on the new price for any Product that embodies such changes. Further, after the first twenty-four (24) months of this Agreement and after each twelve (12) month period thereafter, the Parties shall reasonably and in good faith negotiate prices for each new twelve (12) month period of this Agreement taking the applicable changes in labor, production and material costs into account, provided that Supplier may not propose any increase by an amount greater than the percentage change in the CPI for Medical Care Commodities during the immediately preceding twelve (12) month period. Any adjusted prices under this Section 3.1 shall be valid for the succeeding twelve (12) month period. No price adjustment

shall affect any order due to be shipped within three (3) months of the price adjustment or shipped prior to the effective date of the price adjustment.

4. Forecasts, Purchase Orders and Inventory.

4.1 Forecasts. During the term, Silk Road Medical will furnish to Supplier written, non-binding annual demand forecasts of its expected orders of the Products. For the first year following the Amendment Effective Date Silk Road Medical will furnish to Supplier monthly revisions, and for each year thereafter quarterly revisions, of such forecasts as reasonably necessary to reflect its expected orders of the Products as may be required to meet market conditions and customer requirements. Supplier acknowledges that Silk Road Medical's ordering of Products is subject to market demands. Silk Road Medical shall in no way be liable for Supplier's commitments or production arrangements.

4.2 Purchase Orders. From time to time during the term of this Agreement, Silk Road Medical will submit Purchase Orders for the Products to Supplier in writing, and each Purchase Order will set forth (a) a reference to this Agreement; (b) an identification of the Product ordered by part number; (c) the quantity requested; (d) the requested delivery date in accordance with established lead times; and (e) the term of the Purchase Order. Silk Road Medical's obligation to purchase Products and Supplier's obligation to supply Products under this Agreement is limited to the quantity specified in each individual Purchase Order.

4.3 Acceptance of Orders. Each Purchase Order delivered to Supplier in accordance with the terms of this Agreement will give rise to a contract for the purchase of Products under the terms set forth in this Agreement to the exclusion of any additional or contrary terms set forth in Supplier's confirmation of acceptance, invoice or other document not signed by an executive officer of Silk Road Medical. If a Purchase Order is not acceptable to Supplier, Supplier shall inform Silk Road Medical in writing within two (2) business days after receipt of such Purchase Order; provided that Supplier shall be required to accept any Purchase Order submitted in accordance with Section 4.2 for any quantity that does not exceed the lesser of one hundred twenty five percent (125%) of the quantity in the most recent forecast or one hundred twenty five percent (125%) of the monthly average order quantity for the three (3) months preceding delivery of the Purchase Order. Notwithstanding the foregoing, Supplier shall use its commercially reasonable efforts to accept any quantity in excess of such percentage.

5. Delivery, Acceptance and Change Orders.

5.1 Delivery Conditions. All deliveries of Products pursuant to this Agreement shall be FOB Supplier's port of shipment, as defined in Incoterms 2010. Risk and title to the Products shall pass to Silk Road Medical as defined by such Incoterm. Transport of all Products shall be performed by a service provider selected and contracted by Silk Road Medical. Alternative transport is permitted only after written approval of Silk Road Medical. Silk Road Medical may request that Supplier ship Products by premium freight. In the event Supplier pays any related freight charges, such charges shall be invoiced to Silk Road Medical and Silk Road Medical shall reimburse Supplier for such charges.

5.2 Packing. Products shall be boxed, crated, carted and stored without charge and in a manner that ensures undamaged and safe arrival at their ultimate destination. As between the Parties, Supplier shall be responsible for any loss or damage due to its failure to properly preserve, package and handle the Products.

5.3 **Acceptance**. All Products are subject to final inspection and acceptance by Silk Road Medical at destination notwithstanding any payment or prior inspection at source. Final inspection will be made within thirty (30) days after receipt of Products. Supplier agrees to permit Silk Road Medical's inspectors to have access to Supplier's plant at all reasonable times for the purposes of inspecting the items set forth in this Purchase Order and of work in process for production of such items.

5.4 **Change Orders**.

(a) **General**. All change orders and acceptance or rejection of such change orders shall be in writing and made pursuant to the change order procedure set forth below. All changes are subject to mutual agreement of the Parties. Pending agreement on a change order or in the event agreement regarding the change order is not reached, Supplier will continue to perform and be paid as if such change order had not been requested or recommended, provided that in the event of any recall or field action Supplier will cease performing hereunder until such recall or field action has been satisfactorily resolved. Satisfactory resolution of a recall or field action shall be deemed to have occurred as of the date that:

(i) An action plan has been negotiated and agreed upon with the relevant Competent Authorities and other governmental authorities; and

(ii) A written confirmation has been issued by Supplier that all affected products have been redesigned or reworked per the agreed action plan.

(b) **Pricing Changes**. When the change affects pricing, the written approval must be in the form of a Purchase Order issued by Silk Road Medical. Supplier shall provide Silk Road Medical with a quote for all costs associated with any requested changes. Upon Supplier's receipt of a Purchase Order for any changes issued by Silk Road Medical, Supplier will initiate and complete the specified changes.

(c) **Silk Road Medical Request**. Upon Silk Road Medical's submission of a change order, Supplier will, within seven (7) business days, advise Silk Road Medical of the resultant impact and will provide such information as Silk Road Medical may reasonably request to determine the reasonableness of the impact. Silk Road Medical and Supplier will negotiate the change order request in good faith. After reaching agreement Supplier will proceed with the change order. Supplier will assess the regulatory impact of any changes and acquire regulatory clearance/approval with Notified Body and FDA as needed. Supplier shall provide Silk Road Medical with a quote for all costs associated with regulatory clearance/approval change requests. Upon Supplier's receipt of a Purchase Order for any changes issued by Silk Road Medical, Supplier will initiate and complete the applicable services. Supplier will communicate regulatory issues/approvals to Silk Road Medical within ten (10) days of receipt.

(d) **Supplier Request**. Supplier may request a change order, provided the request is properly detailed with such information that will permit Silk Road Medical to determine the reasonableness thereof. Silk Road Medical and Supplier will negotiate the change order request in good faith. After reaching agreement, Supplier will proceed with the change order. Supplier will assess the regulatory impact of any changes and acquire regulatory clearance/approval with Notified Body and FDA as needed. Supplier will provide evidence of any such regulatory approvals to Silk Road Medical within ten (10) days of receipt.

6. Invoicing and Payment. Unless otherwise specified by Silk Road Medical, a separate invoice shall be issued by Supplier for each shipment and payment in U.S. dollars is due within thirty (30) days of Silk Road Medical's receipt of each invoice (except to the extent disputed in good faith by Silk Road Medical).

7. Representations and Warranties.

7.1 Supplier Representations and Warranties. Supplier represents and warrants to Silk Road Medical that all Products delivered under this Agreement:

(i) strictly comply with the Specifications;

(ii) are new (do not contain any used or reconditioned parts or materials) and fit for the purposes for which they are intended;

(iii) are of sound workmanship, good quality and free from defects in design, construction, manufacture and material;

(iv) do not violate or infringe any third party domestic or foreign patent, copyright, trade secret, trademark or other intellectual property right;

(v) satisfy all Applicable Laws, regulations, certification requirements and agreed standards, including applicable regulatory requirements for the design, manufacture and shipment of the Products, including FDA and any other appropriate international standards;

(vi) are free and clear of all liens, encumbrances, and other claims against title; and

(vii) strictly comply with the terms of this Agreement and the applicable Purchase Orders.

If any of the Products are found to be defective or otherwise not in conformity with the warranties in this Section 7.1, then Silk Road Medical and Supplier will mutually agree upon one (or more) of the following courses of action: a) Supplier will take commercially reasonable effort to inspect, remove, reinstall, ship and repair or replace/re-perform nonconforming Products with Products that conform to all requirements of this Purchase Order; b) Supplier will make commercially reasonable effort to take such actions as may be required to cure all defects and/or bring the Products into conformity with all requirements of this Purchase Order, in which event all related costs and expenses (including, but not limited to, material, labor and handling costs or other service) and other reasonable charges shall be for Supplier's account; and/or c) Silk Road Medical will reject and return all or any portion of such Products. These actions will be at Supplier's expense and will be undertaken in addition to any other rights, remedies and choices Silk Road Medical may have by law, contract or at equity, and in addition to seeking recovery of any and all damages and costs emanating therefrom. Any repaired or replaced Product, or part thereof, shall carry warranties on the same terms as set forth above.

7.2 Survival. The foregoing warranties shall survive any inspection, delivery, acceptance, or payment by Silk Road Medical and shall be enforceable by Silk Road Medical and its Affiliates, distributors, dealers, agents and customers.

8. Confidentiality. Confidential Information means all documents, designs, drawings, procedures, engineering and manufacturing know-how, data and other information, provided by or on behalf of a Party or any of its Affiliates directly or indirectly, before or after the Effective Date, in whatever form (including on paper, electronically, on magnetic media, orally or otherwise), relating to this Agreement, provided that any information shall not be Confidential Information to the extent that the information:

(a) is or becomes generally lawfully available to the public without violation of this Agreement or any other obligation of confidentiality;

(b) is lawfully known by the recipient prior to disclosure by the provider, as demonstrated by contemporaneous written records;

(c) is lawfully obtained by the recipient from a third party without any breach or obligation of confidentiality or violation of law; or

(d) is independently developed by the recipient without use or reference to the Confidential Information of the provider, as demonstrated by contemporaneous written records.

The terms of this Agreement, its execution, as well as any Confidential Information shall be maintained in confidence by the receiving Party, and shall not be reproduced, disclosed, duplicated, or used, except to the extent required in connection with this Agreement or by law or to potential acquirers, lenders, and investors in connection with due diligence in connection with a merger, acquisition, financing or other strategic corporate transaction, without the prior written consent of the disclosing Party.

Each Party shall protect the other Party's Confidential Information against disclosure in the same manner and with the same degree of care, but not less than a reasonable degree of care, with which the receiving Party protects confidential information of its own; and shall limit use of and circulation of the Confidential Information disclosed by the other to such employees of the Parties and of their Affiliates as have a need to know in connection with the requirements of this Agreement. The receiving Party shall return to the disclosing Party or destroy all Confidential Information promptly upon request, except for one (1) archival copy in the receiving Party's secure archives.

These confidentiality obligations shall be in effect for a period of five (5) years from the expiration or termination of this Agreement.

9. Intellectual Property.

9.1 Supplier Indemnity. Supplier shall defend, indemnify and hold harmless Silk Road Medical and its Affiliates, distributors, dealers, agents and customers from and against all liability and expenses, including reasonable attorneys' fees, arising from or related to any claim made or any suit or proceeding brought against Silk Road Medical based on an allegation that Products infringe upon any third party's Intellectual Property Rights.

9.2 License to Silk Road Medical. Supplier hereby grants to Silk Road Medical and its Affiliates, and their subcontractors, distributors, agents and customers, an irrevocable, world-wide, royalty-free, non-exclusive, non-transferable license under all Intellectual Property Rights and regulatory clearance rights Supplier owns or controls to use, build-in, market, sell, lease, distribute or otherwise dispose of the Products.

10. Indemnity, Insurance and Limitation of Liability.

10.1 General Indemnification.

(a) **Supplier Indemnity.** Supplier agrees to indemnify and hold each of Silk Road Medical and its Affiliates, distributors, dealers, agents and customers harmless from and against any loss, claim, damage, liability or expense (including reasonable fees and expenses of counsel) which may be payable by reason of or on account of injury (including death resulting from such injury) to any person caused by, arising from, incident to, connecting with or growing out of the possession or use by any person of any Product manufactured by Supplier and sold by Silk Road Medical.

(b) **Defense.** If any action or proceeding is brought or asserted against an indemnified Party, in respect of which indemnity may be sought from an indemnifying Party pursuant to Sections 9.1or 10.1(a) hereof, the indemnified Party will promptly notify the indemnifying Party in writing, and the indemnifying Party will assume the defense thereof, including the employment of counsel reasonably satisfactory to the indemnified Party and the payment of all expenses. The indemnified Party will have the right to employ separate counsel in any such action and participate in the defense thereof, but the fees and expenses of such counsel will be at the expense of the indemnified Party. The indemnifying Party will not be liable for any settlement of any action or proceeding effected without its written consent, but if settled with its written consent, or if there be as final judgment for the plaintiff in any such action or proceeding, the indemnifying Party will indemnify and hold harmless the indemnified Party from and against any loss or liability by reason of such settlement or judgment.

10.2 Insurance. Supplier will, throughout the term of this Agreement, carry product liability insurance, in an amount acceptable to Silk Road Medical, covering any loss, damage, expense or liability incurred or suffered by any Party other than Silk Road Medical or Supplier arising out of any use of the Product. Such policy or policies will have aggregate limits of liability of not less than two million dollars ($2,000,000) with respect to any incident or occurrence and of not less than two million dollars ($2,000,000) in the aggregate. The Parties will consult and cooperate with respect to the obtaining of all product liability insurance requirements hereunder in the event changes in the cost or availability of such insurance occur during the term of this agreement.

10.3 Limitation of Liability.

EXCEPT WITH RESPECT TO CONFIDENTIALITY, INFRINGEMENT OF INTELLECTUAL PROPERTY RIGHTS, AND THE TERMINATION OF THIS AGREEMENT BY SILK ROAD MEDICAL CAUSED BY A MATERIAL BREACH BY SUPPLIER, SUPPLIER SHALL NOT BE LIABLE TO SILK ROAD MEDICAL FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, INCLUDING LOSS OF BUSINESS, GOODWILL, REVENUE OR PROFITS, BY REASON OF ANY ACT OR OMISSION OR ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT.

10.4 Responsibility for Subcontractors. Supplier shall be fully responsible for all of its participating Affiliates, subcontractors and vendors. Supplier shall ensure that each subcontract contains all applicable Specifications and obligations needed to fully comply with this Agreement. Supplier shall indemnify, defend and hold harmless each of Silk Road Medical and its Affiliates, distributors, dealers, agents and customers from and against any and all claims and liabilities, including all costs and expenses, arising out of or in any way connected with any actual or alleged action or failure to act by Supplier’s Affiliates, subcontractors or vendors.

11. Term and Termination.

11.1 Term. This Agreement will take effect as of the Effective Date and, unless terminated earlier in accordance with Section 11.2, will continue in force until the fifth (5^{th}) year anniversary of the Amendment Effective Date. After the initial term, this Agreement shall automatically renew for successive one (1) year periods. In the event that Silk Road Medical fails to purchase Products under this Agreement for twenty four (24) continuous months, this Agreement will automatically terminate at the end of the existing term.

11.2 Termination. Notwithstanding the provisions of Section 11.1 above, this Agreement may be terminated in accordance with the following provisions:

(a) **Termination for Breach**. Either Party may terminate this Agreement by giving written notice to the other Party in the event the other Party is in material breach of this Agreement and will have failed to cure such material breach within thirty (30) days of receipt of written notice thereof, provided the non-breaching Party, at its discretion, may extend such period;

(b) **Termination for Insolvency**. Either Party may terminate this Agreement at any time by giving written notice to the other Party, which notice will be effective upon dispatch, should the other Party file a petition of any type as to its bankruptcy, be declared bankrupt, become insolvent, make an assignment for the benefit of creditors, or go into liquidation or receivership; or

(a) **Termination without Cause**. Either Party may terminate this Agreement at any time by giving twelve (12) months' prior written notice to the other Party.

11.3 Rights and Obligations Upon Termination. In the event of the expiration or termination of this Agreement for any reason, the Parties will have the following rights and obligations:

(a) Silk Road Medical will remain responsible for payment of all Products for which delivery has been made prior to the effective date of expiration or termination or for which delivery will be made after the effective date of expiration or termination pursuant to Section 11.3(b); provided, however, Silk Road Medical will continue to have the right to reject any Product that does not conform to the Specifications.

(b) All Purchase Orders that are outstanding on the date this Agreement expires or terminates, for any reason, shall be deemed automatically terminated as of the date the Agreement is expired or terminated, provided that Silk Road Medical shall remain responsible for any raw material, in-process Products, or Finished Goods Inventory costs incurred directly as a result of Purchase Orders accepted prior to and fulfilled after the effective date of expiration or termination.

(c) Supplier shall return in the same condition as originally received by Supplier, except for reasonable wear and tear, all tools, equipment, or material and other items purchased, furnished or charged to or paid for by Silk Road Medical, and any replacement of these items, used by Supplier in connection with manufacturing and assembling Products pursuant to this Agreement.

(d) Expiration or termination of this Agreement for any reason shall not release either Party of any obligation or liability which, at the time of such expiration or termination, has already accrued to the other Party or which is attributable to a period prior to such expiration or termination.

12. Miscellaneous.

12.1 Entire Agreement. This Agreement, including **Attachments A** through **B**, all of which are attached to and incorporated into this Agreement, constitutes the entire agreement of the Parties with respect to the subject matter of this Agreement, and supersedes all previous proposals, negotiations, conversations or discussions, oral or written, between the Parties related to this Agreement, except for the Purchase Orders and related Quotations issued under the terms of this Agreement. Each Party acknowledges that it has not been induced to enter into this Agreement by any representations or statements, oral or written, not expressly contained in this Agreement. For clarity, it is understood that this Agreement supersedes and replaces the Original Agreement in its entirety as of the Amendment Effective Date.

12.2 Amendment. This Agreement will not be deemed or construed to be modified, amended, rescinded, cancelled or waived, in whole or in part, other than by written amendment signed by the Parties to this Agreement.

12.3 Governing Law. This Agreement shall be governed by and construed in accordance with the substantive laws of the United States of America and the State of New York without reference to or application of their choice of laws or conflict of laws provisions.

12.4 Notices. All notices and other communications hereunder shall be in writing and shall be deemed to have been duly given if delivered personally (including delivery by courier service), transmitted by electronic mail, return receipt requested, or mailed by registered or certified mail, postage prepaid, return receipt requested, or sent by a nationally recognized overnight courier service, as follows:

(i) If to Silk Road Medical, to:

Silk Road Medical, Inc.
735 North Pastoria Avenue,
Sunnyvale, CA 94085
Attention: Lucas Buchanan, Chief Financial Officer
Email: lbuchanan@silkroadmedical.com

(ii) If to Supplier, to:

GaltMedical Corporation
2220 Merritt Drive
Garland Texas
Attention: Eric Meyers, Executive Vice President of Sales & Marketing
Email: emeyers@galtneedletech.com

or to such other address as the Party to whom notice is to be given may have previously furnished to the other Party in writing in accordance herewith. Notice shall be deemed given on the date received (or, if receipt thereof is refused, on the date of such refusal).

12.5 Dispute Resolution. The Parties shall make good faith efforts to settle all disputes or differences which may arise under this Agreement, or in connection herewith, amicably and to the benefit of all Parties by means of informal negotiations.

In the event that the Parties are unable to resolve their differences amicably, disputes which may arise out of this Agreement or in connection with its breach, termination or invalidity shall be finally settled by binding arbitration conducted in accordance with the Rules of Commercial Arbitration of the American Arbitration Association, by one or more arbitrators appointed in accordance with

such Rules. The applicable law shall be that set forth in Section 12.3 of this Agreement. The arbitration shall be held in Wilmington, DE. The award of the arbitrator(s) shall be final and binding on the Parties and may be entered in any court having jurisdiction over the Parties or their assets. No waiver by any Party of any non-compliance, default, misrepresentation or breach of warranty or covenant hereunder, whether intentional or not, shall be deemed to extend to any prior or subsequent non-compliance, default, misrepresentation or breach of warranty or covenant hereunder or affect in any way any rights arising by virtue of any prior or subsequent such occurrence. Each Party shall bear its own costs and expenses and attorneys' fees and an equal share of the arbitrator's and any administrative fees of arbitration, unless the arbitrator determine that a Party has incurred unreasonable expenses due to vexatious or bad faith position taken by the other Party, in which event, the arbitrator may make an award of all or any portion of such expense so incurred.

12.6 Severability. If any term or provision of this Agreement shall, to any extent, be held by a court of competent jurisdiction to be invalid or unenforceable, the remainder of this Agreement or the application of such term or provision to persons or circumstances other than those as to which it has been held invalid or unenforceable, shall not be affected thereby and this Agreement shall be deemed severable and shall be enforced otherwise to the fullest extent permitted by law.

12.7 Rights Cumulative. Except as expressly provided herein, the rights and remedies provided in this Agreement shall be cumulative and not exclusive of any other rights and remedies provided by law or otherwise.

12.8 Independent Contractors. This Agreement does not make either Party the employee, agent or legal representative of the other for any purpose whatsoever. Neither Party is granted any right or authority to assume or to create any obligation or responsibility, express or implied, on behalf of or in the name of the other Party. In fulfilling its obligations pursuant to this Agreement, each Party will be acting as an independent contractor.

12.9 Headings/Interpretation. The headings preceding the text of sections and sub-sections included in this Agreement and the headings to the Exhibits attached to this Agreement are for convenience only and shall not be deemed part of this Agreement or be given any effect in interpreting this Agreement. The use of the masculine, feminine or neuter gender herein shall not limit any provision of this Agreement. The use of the terms "including" or "include" shall in all cases herein mean "including, without limitation" or "include, without limitation," respectively.

12.10 No Assignment. Neither Party may assign or delegate this Agreement or any of its rights or obligations hereunder without the prior written consent of the other Party, which shall not be unreasonably withheld; provided that Silk Road Medical may assign this Agreement without Supplier's consent to an Affiliate or to a third party that acquires all or substantially all of the business or assets to which this Agreement pertains, whether by merger, consolidation, change of control or otherwise. Any attempted assignment in violation of this Section 12.10 shall be null and void. Subject to the foregoing, this Agreement will be binding upon and inure to the benefit of the Parties hereto and their respective successors, heirs, legatees, distributees and assigns.

12.11 Further Assurances. At any time from and after the Effective Date, each Party shall, without additional consideration, upon the request of the other Party, execute, acknowledge, and deliver such documents, and will take such other action consistent with the terms of this Agreement, as may be reasonably required to consummate the transactions contemplated by this Agreement and to permit each Party to enjoy their prospective rights and benefits hereunder.

12.12 Certain Costs and Expenses. Supplier, on one hand, and Silk Road Medical, on the other hand, will bear their own respective expenses and legal fees incurred with respect to this Agreement and the transactions contemplated hereby.

12.13 Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed to constitute an original and shall become effective when one or more counterparts have been signed by each Party hereto and delivered to the other Party. Counterparts delivered in "pdf" form shall be as effective as manually signed counterparts; provided, however, that any Party supplying a pdf counterpart shall promptly forward an originally executed counterpart.

12.14 Survival. Sections 1, 2.2 (solely for seven (7) years), 2.3, 2.4, 2.5, 8 (solely for five (5) years), 9, 10, 11.3 and 12 shall survive termination of this Agreement.

12.15 Compliance with Laws. Supplier will at all times comply with all applicable standards, provisions and stipulations of all United States federal, state and local laws, rules, regulations and ordinances relevant to performance under this Agreement and each Purchase Order, including but not limited to all fair labor, equal opportunity and environmental compliance laws, rules, regulations and ordinances. Supplier shall furnish to Silk Road Medical any information required to enable Silk Road Medical to comply with such laws, rules, and regulations in its use of the Products.

12.16 HIPAA Compliance. Silk Road Medical and Supplier agree that Supplier shall not use or further disclose individually identifiable health information ("**PHI**") as defined in and subject to protection under the Health Insurance Portability and Accountability Act of 1996 and the regulations promulgated pursuant thereto ("**HIPAA**") other than as permitted by this Agreement or required by law. Supplier shall use appropriate safeguards to prevent the use or disclosure of the PHI other than as permitted by this Agreement, and shall implement administrative, physical, and technical safeguards that reasonably and appropriately protect the confidentiality, integrity, and availability of Electronic Protected Health Information ("**ePHI**") ("**Safeguards**"). Supplier shall report to Silk Road Medical: (a) any use or disclosure of the PHI not permitted by this Agreement or by law of which Supplier becomes aware; and (b) any Security Incident of which Supplier becomes aware. To the extent that Supplier uses one or more subcontractors or agents to provide services under this Agreement, and such subcontractors or agents receive or have access to the PHI, each such subcontractor or agent shall: (i) enter into a written agreement with Supplier containing the same restrictions and conditions set forth in the business associate provisions of HIPAA that apply through Supplier; and (ii) implement reasonable and appropriate Safeguards to protect ePHI. Supplier agrees to make (A) its internal practices, books and records relating to the use and disclosure of PHI and (B) its policies, procedures and documentation required by the Security Rule relating to the Safeguards, available to the Secretary of the U.S. Department of Health and Human Services or his designee to the extent necessary to determine Supplier's customer's compliance with HIPAA. Supplier agrees to make available to Silk Road Medical the information in its possession required to provide an accounting of Supplier's disclosures of PHI as required by HIPAA. Supplier shall use reasonable commercial efforts to mitigate any harmful effect that is known to Supplier of a use or disclosure of PHI by Supplier in violation of this Agreement. Upon the termination of this Agreement for any reason, Supplier shall remain bound by the provisions of this Section 12.16 with respect to any PHI that remains in its possession.

12.17 Excluded Provider. Supplier represents and warrants that it, and, to the best of its knowledge, its employees and subcontractors providing the Products are not debarred, excluded, suspended or otherwise ineligible to participate in a federal health care program, nor have they been convicted of any health care related crime (an "**Excluded Provider**"). Supplier shall promptly notify Silk Road Medical in writing in the event that it becomes aware that any of its employees or subcontractors providing the Products has become an Excluded Provider. Silk Road Medical may terminate this Agreement upon written notice to Supplier if Supplier, or any of its employees or subcontractors providing the Products becomes an Excluded Provider.

12.18 **Force Majeure**. Neither Party will be in default under this Agreement, because of any failure to perform any of its obligations under this Agreement if such failure arises from causes beyond the control of such Party and without the fault or negligence of such Party, including, but not limited to, Acts of God, acts of the public enemy, terrorism, acts of the government, fires, floods, earthquakes, epidemics, quarantine restrictions, strikes, freight embargoes, failure of carriers, and inability to obtain materials. If it appears that either Party's performance under this Agreement may be delayed by an event of force majeure, such Party will notify the other Party as soon as practicable, and shall use commercially reasonable efforts to overcome the difficulties created thereby and to resume performance of its obligations as soon as practicable. During the period that the performance by one of the Parties of its obligations under this Agreement has been suspended by reason of an event of force majeure, the other Party may likewise suspend the performance of all or part of its obligations hereunder (other than the obligation to pay any amounts due and owing) to the extent that such suspension is commercially reasonable.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed on the Amendment Effective Date.

SILK ROAD MEDICAL, INC.

By /s/ Lucas Buchanan

Name: Lucas Buchanan
Title: Chief Financial Officer

GALT MEDICAL CORPORATION

By /s/ Eric Meyers

Name: Eric Meyers
Title: Executive Vice President of Sales & Marketing

Attachment A – Specifications

Silk Road Medical's Part #	Description	Supplier's Part #
11789-05	Sterile Micro Introducer Kit with 4cm 21Gauge needle with depth indicator, 0.018" nitinol wire with depth indicator, 4F sheath with non-stiffened and stiffened dilators	KIT-075-00
11789-06	Sterile Micro Introducer Kit with 7cm 21Gauge needle with depth indicator, 0.018" nitinol wire with depth indicator, 4F sheath with non-stiffened and stiffened dilators	KIT-075-01
11789-07	Sterile Micro Introducer Kit with 4cm 21Gauge needle with depth indicator, 0.018"x50cm nitinol wire with depth indicator, 4Fx15cm sheath with depth indicators, non-stiffened and stiffened dilators, 20cm extension tube with stopcock.	KIT-075-02
11789-08	Sterile Micro Introducer Kit with 7cm 21Gauge needle with depth indicator, 0.018"x50cm nitinol wire with depth indicator, 4Fx15cm sheath with depth indicators, non-stiffened and stiffened dilators, 20cm extension tube with stopcock.	KIT-075-03

Attachment B – Prices, Estimated Order Quantity

Silk Road Medical P/N	Supplier P/N	Quantity*	Unit Price
11789-05, -06	KIT-075-00, -01	[******]	[******]
11789-07, -08	KIT-075-02, -03	[******]	[******]
		[******]	[******]
		[******]	[******]
		[******]	[******]

* Quantity represents the combined number of units ordered:
- 11789-05 and 11789-06, or
- 11789-07 and 11789-08

Exhibit 10.10

Execution Version

TERM LOAN AGREEMENT

dated as of

OCTOBER 13, 2015

between

SILK ROAD MEDICAL, INC.
as Borrower,

The SUBSIDIARY GUARANTORS from Time to Time Party Hereto,

and

CRG Partners III L.P., CRG Partners III – Parallel Fund "A" L.P., CRG Partners III – Parallel Fund "B" (Cayman) L.P., CRG Partners III (Cayman) L.P.

as Lenders

U.S. $30,000,000

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SCHEDULES AND EXHBITS

TERM LOAN AGREEMENT, dated as of October 13, 2015 (as amended, restated, modified or otherwise supplemented from time to time, this "***Agreement***"), among SILK ROAD MEDICAL, INC., a Delaware corporation ("***Borrower***"), the SUBSIDIARY GUARANTORS from time to time party hereto and the Lenders from time to time party hereto.

WITNESSETH:

Borrower has requested the Lenders to make term loans to Borrower, and the Lenders are prepared to make such loans on and subject to the terms and conditions hereof. Accordingly, the parties agree as follows:

SECTION 1
DEFINITIONS

1.01 Certain Defined Terms. As used herein, the following terms have the following respective meanings:

"***Accounting Change Notice***" has the meaning set forth in **Section 1.04(a)**.

"***Accounts Receivable***" means accounts arising from the sale or lease of inventory or the provision of services, but specifically excluding any accounts arising (i) from the sale or licensing of any Intellectual Property, or (ii) from the sale or lease of equipment.

"***Act***" has the meaning set forth in **Section 12.17**.

"***Acquisition***" means any transaction, or any series of related transactions, by which any Person directly or indirectly, by means of a take-over bid, tender offer, amalgamation, merger, purchase of assets, or similar transaction having the same effect as any of the foregoing, (a) acquires business or any division, product or line of business or all or substantially all of the assets of any Person engaged in any business or any division, product or line of business, (b) acquires control of securities of a Person engaged in a business representing more than 50% of the ordinary voting power for the election of directors or other governing body if the business affairs of such Person are managed by a board of directors or other governing body, or (c) acquires control of more than 50% of the ownership interest in any Person engaged in any business that is not managed by a board of directors or other governing body.

"***Affected Lender***" has the meaning set forth in **Section 2.07(a)**.

"***Affiliate***" means, with respect to a specified Person, another Person that directly, or indirectly through one or more intermediaries, Controls or is Controlled by or is under common Control with the Person specified.

"***Agreement***" has the meaning set forth in the introduction hereto. "***Asset Sale***" is defined in **Section 9.09**.

"***Asset Sale Net Proceeds***" means the aggregate amount of the cash proceeds received from any Asset Sale, including any cash received upon the sale or other disposition of non-cash

proceeds received from any Asset Sale, net of any bona fide fees, costs and reasonable out-of- pocket expenses incurred in connection with such Asset Sale, including without limitation any legal, accounting and investment banking fees, brokerage and sales commissions, taxes paid or payable in respect thereof, amounts required to be repaid on account of any Indebtedness or other obligations (other than the Obligations) required to be repaid as a result of such Asset Sale, and amounts required to be reserved in accordance with GAAP against liabilities associated with the assets disposed of in such Asset Sale, plus, with respect to any non-cash proceeds of an Asset Sale, the fair market value of such non cash proceeds as determined by the Majority Lenders, acting reasonably.

"***Assignment and Assumption***" means an assignment and assumption entered into by a Lender and an assignee of such Lender.

"***Bankruptcy Code***" means Title II of the United States Code entitled "Bankruptcy."

"***Benefit Plan***" means any employee benefit plan as defined in Section 3(3) of ERISA (whether governed by the laws of the United States or otherwise) to which any Obligor or ERISA Affiliate thereof incurs or otherwise has any obligation or liability, contingent or otherwise.

"***Borrower***" has the meaning set forth in the introduction hereto.

"***Borrower Facility***" means the premises located at 733-735 North Pastoria Ave., Sunnyvale, CA 94085, which are leased by Borrower pursuant to the Borrower Lease.

"***Borrower Landlord***" means North Pastoria Partners, a California limited partnership.

"***Borrower Lease***" means the Lease Agreement dated November 15, 2011 by and between Borrower and Borrower Landlord.

"***Borrower Party***" has the meaning set forth in **Section 12.03(b)**.

"***Borrowing***" means a borrowing consisting of Loans made on the same day by the Lenders according to their respective Commitments (including without limitation a borrowing of a PIK Loan).

"***Borrowing Date***" means the date of a Borrowing.

"***Borrowing Notice Date***" means, (i) in the case of the first Borrowing, a date that is at least twelve Business Days prior to the Borrowing Date of such Borrowing (or such shorter period as may be agreed by the Lenders) and, (ii) in the case of a subsequent Borrowing (other than a Borrowing of a PIK Loan), a date that is at least twenty Business Days prior to the Borrowing Date of such Borrowing.

"***Business Day***" means a day (other than a Saturday or Sunday) on which commercial banks are not authorized or required to close in New York City.

"***Capital Lease Obligations***" means, as to any Person, the obligations of such Person to pay rent or other amounts under a lease of (or other agreement conveying the right to use) real

and/or personal Property which obligations are required to be classified and accounted for as a capital lease on a balance sheet of such Person under GAAP and, for purposes of this Agreement, the amount of such obligations shall be the capitalized amount thereof, determined in accordance with GAAP.

"***Change of Control***" means the acquisition of ownership, directly or indirectly, beneficially or of record, by any Person or group of Persons acting jointly or otherwise in concert (other than the Permitted Holders) of capital stock representing more than 50% (or, if Borrower becomes a Publicly Reporting Company, 35% unless the Permitted Holders own more than 35%) of the aggregate ordinary voting power represented by the issued and outstanding capital stock of Borrower, or (b) if the Borrower becomes a Publicly Reporting Company, during any period of twelve (12) consecutive calendar months when the Borrower is a Publicly Reporting Company, the occupation of a majority of the seats (other than vacant seats) on the board of directors of Borrower by Persons who were neither (i) nominated or approved by the board of directors or Borrower, not (ii) appointed or approved by directors so nominated; in each case whether as a result of a tender or exchange offer, open market purchases, privately negotiated purchases or otherwise.

"***Claims***" includes claims, demands, complaints, grievances, actions, applications, suits, causes of action, orders, charges, indictments, prosecutions, informations (brought by a public prosecutor without grand jury indictment) or other similar processes, assessments or reassessments.

"***Code***" means the Internal Revenue Code of 1986, as amended from time to time. "***Collateral***" means any Property in which a Lien is purported to be granted under any of the Security Documents (or all such Property, as the context may require).

"***Commitment***" means, with respect to each Lender, the obligation of such Lender to make Loans to Borrower in accordance with the terms and conditions of this Agreement, which commitment is in the amount set forth opposite such Lender's name on **Schedule 1** under the caption "Commitment", as such Schedule may be amended from time to time. The aggregate Commitments on the date hereof equal $30,000,000. For purposes of clarification, the amount of any PIK Loans shall not reduce the amount of the available Commitment.

"***Commitment Period***" means the period from and including the first date on which all of the conditions precedent set forth in **Section 6.01** have been satisfied (or waived by the Lenders) and through and including March 29, 2017.

"***Commodity Account***" is defined in the Security Agreement.

"***Compliance Certificate***" has the meaning given to such term in **Section 8.01(c)**.

"***Connection Income Taxes***" means Other Connection Taxes that are imposed on or measured by net income (however denominated) or that are franchise Taxes or branch profits Taxes.

"***Contracts***" means any written contracts, licenses, leases, agreements, undertakings, arrangements, documents or commitments under which a Person has, or will have, any liability or contingent liability.

"***Control***" means, in respect of a particular Person, the possession, directly or indirectly, of the power to direct or cause the direction of the management or policies of such Person, whether through the ability to exercise voting power, by contract or otherwise. "Controlling" and "Controlled" have meanings correlative thereto.

"***Control Agent***" means the Lender acting as "Control Agent" under the Security Agreement.

"***Copyright***" is defined in the Security Agreement.

"***Cure Amount***" has the meaning set forth in **Section 10.03(a)**. "***Cure Right***" has the meaning set forth in **Section 10.03(a)(ii)**.

"***Default***" means any Event of Default and any event that, upon the giving of notice, the lapse of time or both, would constitute an Event of Default.

"***Default Rate***" has the meaning set forth in **Section 3.02(b)**.

"***Defaulting Lender***" means, subject to **Section 2.06**, any Lender that (a) has failed to perform any of its funding obligations hereunder, including in respect of its Loans, within three (3) Business Days of the date required to be funded by it hereunder, (b) has notified Borrower or any Lender that it does not intend to comply with its funding obligations hereunder or has made a public statement to that effect with respect to its funding obligations hereunder or under other agreements in which it commits to extend credit, or (c) has, or has a direct or indirect parent company that has, (i) become the subject of an Insolvency Proceeding, (ii) had a receiver, conservator, trustee, administrator, assignee for the benefit of creditors or similar Person charged with reorganization or liquidation of its business or a custodian appointed for it, or (iii) taken any action in furtherance of, or indicated its consent to, approval of or acquiescence in any such proceeding or appointment; provided that a Lender shall not be a Defaulting Lender solely by virtue of the ownership or acquisition of any equity interest in that Lender or any direct or indirect parent company thereof by a Governmental Authority.

"***Deposit Account***" is defined in the Security Agreement.

"***Disqualified Equity Interests***" means, with respect to any Person, any Equity Interests of such Person which, by their terms, or by the terms of any security into which they are convertible or for which they are putable or exchangeable, or upon the happening of any event or condition, (a) mature or are mandatorily redeemable (other than solely as a result of a change of control or asset sale, so long as any rights of the holders thereof upon the occurrence of a change of control or asset sale event shall be subject to the prior indefeasible repayment in full in cash of the Loans and all other Obligations that are accrued and payable and the termination or expiration of the Commitments) pursuant to a sinking fund obligation or otherwise, or are redeemable at the option of the holder thereof (other than solely as a result of a change of control

or asset sale, so long as any rights of the holders thereof upon the occurrence of a change of control or asset sale event shall be subject to the prior indefeasible repayment in full in cash of the Loans and all other Obligations that are accrued and payable and the termination or expiration of the Commitments), in whole or in part, or otherwise has any distributions or other payments which are mandatory or otherwise required at any time (other than distributions or payments in Equity Interests that do not constitute Disqualified Equity Interests), in each case prior to the date 181 days after the Stated Maturity Date, or (b) is convertible into or exchangeable (unless at the sole option of the issuer thereof) for (x) debt securities or (y) any Equity Interest referred to in clause (a) above; *provided*, *however*, that if such Equity Interests are issued to any plan for the benefit of employees of Borrower or its Subsidiaries or by any such plan to such employees, such Equity Interests shall not constitute Disqualified Equity Interests solely because they may be required to be repurchased by Borrower or its Subsidiaries in order to satisfy applicable statutory or regulatory obligations.

"***Dollars***" and "***$***" means lawful money of the United States of America. "***Domestic Subsidiary***" means any Subsidiary that is a corporation, limited liability company, partnership or similar business entity incorporated, formed or organized under the laws of the United States, any State of the United States or the District of Columbia.

"***Eligible Transferee***" means and includes a commercial bank, an insurance company, a finance company, a financial institution, any investment fund that invests in loans or any other "accredited investor" (as defined in Regulation D of the Securities Act) that is principally in the business of managing investments or holding assets for investment purposes; *provided* that, as of any date, so long as no Event of Default has occurred and is continuing, "Eligible Transferee" shall not include any Person that has been identified in writing by Borrower to the Lenders not less than 10 Business Days prior to such date and that produces, markets or sells, a product in direct competition with the Products.

"***Environmental Law***" means any federal, state, provincial or local governmental law, rule, regulation, order, writ, judgment, injunction or decree relating to pollution or protection of the environment or the treatment, storage, disposal, release, threatened release or handling of hazardous materials, and all local laws and regulations related to environmental matters and any specific agreements entered into with any competent authorities which include commitments related to environmental matters.

"***Equity Cure Right***" has the meaning set forth in **Section 10.03(a)**.

"***Equity Interest***" shall mean, with respect to any Person, any and all shares, interests, participations or other equivalents, including membership interests (however designated, whether voting or nonvoting), of equity of such Person, including, if such Person is a partnership, partnership interests (whether general or limited) and any other interest or participation that confers on a Person the right to receive a share of the profits and losses of, or distributions of property of, such partnership; *provided* that "Equity Interest" shall exclude debt securities convertible or exchangeable into such equity or other interests described in this definition.

"***Equivalent Amount***" means, with respect to an amount denominated in one currency, the amount in another currency that could be purchased by the amount in the first currency determined by reference to the Exchange Rate at the time of determination.

"***ERISA***" means the United States Employee Retirement Income Security Act of 1974, as amended.

"***ERISA Affiliate***" means, collectively, any Obligor and any Person under common control, or treated as a single employer, with any Obligor within the meaning of Section 414(b), (c), (m) or (o) of the Code.

"***ERISA Event***" means with respect to Title IV Plans and Multiemployer Plans: (i) a reportable event as defined in Section 4043 of ERISA with respect to a Title IV Plan, excluding, however, such events as to which the PBGC by regulation has waived the requirement of Section 4043(a) of ERISA that it be notified within 30 days of the occurrence of such event; (ii) the applicability of the requirements of Section 4043(b) of ERISA with respect to a contributing sponsor, as defined in Section 4001(a)(13) of ERISA, to any Title IV Plan where an event described in paragraph (9), (10), (11), (12) or (13) of Section 4043(c) of ERISA is reasonably expected to occur with respect to such plan within the following 30 days; (iii) a withdrawal by any Obligor or any ERISA Affiliate thereof from a Title IV Plan or the termination of any Title IV Plan resulting in liability under Sections 4063 or 4064 of ERISA; (iv) the withdrawal of any Obligor or any ERISA Affiliate thereof in a complete or partial withdrawal (within the meaning of Section 4203 and 4205 of ERISA) from any Multiemployer Plan if there is any potential liability therefore, or the receipt by any Obligor or any ERISA Affiliate thereof of notice from any Multiemployer Plan that it is in reorganization or insolvency pursuant to Section 4241 or 4245 of ERISA; (v) the filing of a notice of intent to terminate a Title IV Plan or Multiemployer Plan, the treatment of a plan amendment as a termination under Section 4041 or 4041A of ERISA, or the commencement of proceedings by the PBGC to terminate a Title IV Plan or Multiemployer Plan; (vi) the imposition of liability on any Obligor or any ERISA Affiliate thereof pursuant to Sections 4062(e) or 4069 of ERISA or by reason of the application of Section 4212(c) of ERISA; (vii) the failure by any Obligor or any ERISA Affiliate thereof to make any required contribution to a Benefit Plan, or the failure to meet the minimum funding standard of Section 412 of the Code with respect to any Title IV Plan (whether or not waived in accordance with Section 412(c) of the Code) or the failure to make by its due date a required installment under Section 430 of the Code with respect to any Title IV Plan or the failure to make any required contribution to a Multiemployer Plan; (viii) the determination that any Title IV Plan is considered an at-risk plan or a plan in endangered to critical status within the meaning of Sections 430, 431 and 432 of the Code or Sections 303, 304 and 305 of ERISA; (ix) an event or condition which might reasonably be expected to constitute grounds under Section 4042 of ERISA for the termination of, or the appointment of a trustee to administer, any Title IV Plan or Multiemployer Plan; (x) the imposition of any liability under Title I or Title IV of ERISA, other than PBGC premiums due but not delinquent under Section 4007 of ERISA, upon any Obligor or any ERISA Affiliate thereof; (xi) an application for a funding waiver under Section 303 of ERISA or an extension of any amortization period pursuant to Section 412 of the Code with respect to any Title IV Plan; (xii) with respect to any Benefit Plan, the occurrence of a non- exempt prohibited transaction under Sections 406 or 407 of ERISA for which any Obligor or any Subsidiary thereof may be directly or indirectly liable; (xiii) a violation of the applicable

requirements of Section 404 or 405 of ERISA or the exclusive benefit rule under Section 401(a) of the Code by any fiduciary or disqualified person for which any Obligor or any ERISA Affiliate thereof may be directly or indirectly liable; (xiv) the occurrence of an act or omission which could give rise to the imposition on any Obligor or any ERISA Affiliate thereof of fines, penalties, taxes or related charges under Chapter 43 of the Code or under Sections 409, 502(c), (i) or (1) or 4071 of ERISA; or (xv) the imposition of any lien (or the fulfillment of the conditions for the imposition of any lien) on any of the rights, properties or assets of any Obligor or any ERISA Affiliate thereof, in respect of any Benefit Plan pursuant to Title I or IV, including Section 302(f) or 303(k) of ERISA or to Section 401(a)(29) or 430(k) of the Code.

"***ERISA Funding Rules***" means the laws regarding minimum required contributions (including any installment payment thereof) to Title IV Plans, as set forth in Sections 412, 430, 431, 432 and 436 of the Code and Sections 302, 303, 304 and 305 of ERISA.

"***Event of Default***" has the meaning set forth in **Section 11.01**.

"***Exchange Rate***" means the rate at which any currency (the "***Pre-Exchange Currency***") may be exchanged into another currency (the "***Post-Exchange Currency***"), as set forth on such date on reuters.com at or about 11:00 a.m. (Central time) on such date. In the event that such rate does not appear on reuters.com, the "Exchange Rate" with respect to exchanging such Pre-Exchange Currency into such Post-Exchange Currency shall be determined by reference to such other publicly available service for displaying exchange rates as may be agreed upon by Borrower and the Majority Lenders or, in the absence of such agreement, such Exchange Rate shall instead be determined by the Majority Lenders by any reasonable method as they deem applicable to determine such rate, and such determination shall be conclusive absent manifest error.

"***Excluded Accounts***" means accounts of Borrower or any of its Subsidiaries (i) used exclusively for payroll, payroll taxes or other employee wage and benefit payments or (ii) constituting cash collateral accounts subject to Permitted Liens.

"***Excluded Assets***" has the meaning set forth in the Security Agreement.

"***Excluded Taxes***" means any of the following Taxes imposed on or with respect to a Recipient or required to be withheld or deducted from a payment to a Recipient: (a) Taxes imposed on or measured by net income (however denominated), franchise Taxes and branch profits Taxes, in each case (i) imposed as a result of such Recipient being organized under the laws of, or having its principal office or, in the case of any Lender, its applicable lending office located in, the jurisdiction imposing such Tax, or (ii) that are Other Connection Taxes, (b) U.S. federal withholding Taxes that are imposed on amounts payable to a Lender to the extent that the obligation to withhold amounts existed on the date that such Lender became a "Lender" under this Agreement (other than pursuant to an assignment request by Borrower under Section 5.03(g)), except in each case to the extent such Lender is an assignee of any other Lender that was entitled, at the time the assignment of such other Lender became effective, to receive additional amounts under **Section 5.03**, (c) any Taxes imposed in connection with FATCA, and (d) Taxes attributable to such Recipient's failure to comply with **Section 5.03(e)**.

"***Expense Cap***" has the meaning set forth in the Fee Letter.

"***FATCA***" means Sections 1471 through 1474 of the Code, as of the date of this Agreement (or any amended or successor version that is substantively comparable and not more onerous to comply with), any regulations or official interpretations thereof, any agreements entered into pursuant to Section 1471(b)(1) of the Code, any intergovernmental agreement entered into in connection with the implementation of such Sections of the Code, and any fiscal or regulatory legislation, rules or practices adopted pursuant to such intergovernmental agreement.

"***Fee Letter***" means that fee letter agreement dated as of the date hereof between Borrower and the Lenders party thereto.

"***Foreign Lender***" means a Lender that is not a U.S. Person.

"***Foreign Subsidiary***" means a Subsidiary of Borrower that is not a Domestic Subsidiary. "***GAAP***" means generally accepted accounting principles in the United States of America, as in effect from time to time, set forth in the opinions and pronouncements of the Accounting Principles Board and the American Institute of Certified Public Accountants, in the statements and pronouncements of the Financial Accounting Standards Board and in such other statements by such other entity as may be in general use by significant segments of the accounting profession that are applicable to the circumstances as of the date of determination. Subject to **Section 1.02** and **Section 1.04**, all references to "GAAP" shall be to GAAP applied consistently with the principles used in the preparation of the financial statements described in **Section 7.04(a)**.

"***Governmental Approval***" means any consent, authorization, approval, order, license, franchise, permit, certificate, accreditation, registration, filing or notice, of, issued by, from or to, or other act by or in respect of, any Governmental Authority.

"***Governmental Authority***" means any nation, government, branch of power (whether executive, legislative or judicial), state, province or municipality or other political subdivision thereof and any entity exercising executive, legislative, judicial, monetary, regulatory or administrative functions of or pertaining to government, including without limitation regulatory authorities, governmental departments, agencies, commissions, bureaus, officials, ministers, courts, bodies, boards, tribunals and dispute settlement panels, and other law-, rule- or regulation-making organizations or entities of any State, territory, county, city or other political subdivision of the United States.

"***Guarantee***" of or by any Person (the "***guarantor***") means any obligation, contingent or otherwise, of the guarantor guaranteeing or having the economic effect of guaranteeing any Indebtedness or other obligation of any other Person (the "***primary obligor***") in any manner, whether directly or indirectly, and including any obligation of the guarantor, direct or indirect, (a) to purchase or pay (or advance or supply funds for the purchase or payment of) such Indebtedness or other obligation or to purchase (or to advance or supply funds for the purchase of) any security for the payment thereof, (b) to purchase or lease property, securities or services for the purpose of assuring the owner of such Indebtedness or other obligation of the payment

thereof, (c) to maintain working capital, equity capital or any other financial statement condition or liquidity of the primary obligor so as to enable the primary obligor to pay such Indebtedness or other obligation or (d) as an account party in respect of any letter of credit or letter of guaranty issued to support such Indebtedness or obligation; *provided*, that the term Guarantee shall not include endorsements for collection or deposit in the ordinary course of business or indemnification obligations incurred in the ordinary course of business or in connection with transactions permitted under this Agreement. The amount of any Guarantee shall be deemed to be an amount equal to the stated or determinable amount of the related primary obligation, or portion thereof, in respect of which such Guarantee is made or, if not stated or determinable, the maximum reasonably anticipated liability in respect thereof as determined by the guaranteeing Person in good faith.

"***Guarantee Assumption Agreement***" means a Guarantee Assumption Agreement substantially in the form of **Exhibit A** by an entity that, pursuant to **Section 8.12(a)**, is required to become a "Subsidiary Guarantor" hereunder in favor of the Lenders.

"***Guaranteed Obligations***" has the meaning set forth in **Section 13.01**.

"***Hazardous Material***" means any substance, element, chemical, compound, product, solid, gas, liquid, waste, by-product, pollutant, contaminant or material which is hazardous or toxic, and includes, without limitation, (a) asbestos, polychlorinated biphenyls and petroleum (including crude oil or any fraction thereof) and (b) any material classified or regulated as "hazardous" or "toxic" or words of like import pursuant to an Environmental Law.

"***Hedging Agreement***" means any interest rate exchange agreement, foreign currency exchange agreement, commodity price protection agreement or other interest or currency exchange rate or commodity price hedging arrangement.

"***Indebtedness***" of any Person means, without duplication, (a) all obligations of such Person for borrowed money, (b) all obligations of such Person evidenced by bonds, debentures, notes or similar instruments, (c) all obligations of such Person upon which interest charges are customarily paid, (d) all obligations of such Person under conditional sale or other title retention agreements relating to property acquired by such Person, (e) all obligations of such Person in respect of the deferred purchase price of property or services (excluding current accounts payable, intercompany charges of expenses and deferred revenue, in each case arising in the ordinary course of business), (f) all Indebtedness of others secured by (or for which the holder of such Indebtedness has an existing right, contingent or otherwise, to be secured by) any Lien on property owned or acquired by such Person, whether or not the Indebtedness secured thereby has been assumed, (g) all Guarantees by such Person of Indebtedness of others, (h) all Capital Lease Obligations of such Person, (i) the maximum amount available to be drawn letters of credit and letters of guaranty respect of which such Person is an account party or otherwise liable, (j) net obligations under any Hedging Agreement currency swaps, forwards, futures or derivatives transactions, (k) all obligations, contingent or otherwise, of such Person in respect of bankers' acceptances, (l) all obligations of such Person under agreements containing a guaranteed minimum payment or purchase by such Person (other than obligations under operating leases, license agreements and supply agreements in each case entered into in the ordinary course of business), and (m) all obligations to purchase, redeem, retire, defease or make any payment in

respect of Disqualified Equity Interests of such Person. The Indebtedness of any Person shall include the Indebtedness of any other entity (including any partnership in which such Person is a general partner) to the extent such Person is liable therefor as a result of such Person's ownership interest in such entity, except to the extent the terms of such Indebtedness provide that such Person is not liable therefor.

"***Indemnified Party***" has the meaning set forth in **Section 12.03(b)**.

"***Indemnified Taxes***" means (a) Taxes, other than Excluded Taxes, imposed on or with respect to any payment made by or on account of any Obligation and (b) to the extent not otherwise described in clause (a), Other Taxes.

"***Insolvency Proceeding***" means (i) any case, action or proceeding before any court or other Governmental Authority relating to bankruptcy, reorganization, insolvency, liquidation, receivership, dissolution, winding-up or relief of debtors, or (ii) any general assignment for the benefit of creditors, composition, marshaling of assets for creditors, or other, similar arrangement for the benefit of any Person's creditors generally or any substantial portion of such Person's creditors, in each case undertaken under U.S. Federal, state or foreign law, including the Bankruptcy Code.

"***Intellectual Property***" means all Patents, Trademarks, Copyrights, and Technical Information, whether registered or not, domestic and foreign. Intellectual Property shall include all:

(a) applications or registrations relating to such Intellectual Property;

(b) rights and privileges arising under applicable Laws with respect to such Intellectual Property;

(c) rights to sue for past, present or future infringements of such Intellectual Property; and

(d) rights of the same or similar effect or nature in any jurisdiction corresponding to such Intellectual Property throughout the world.

"***Interest-Only Period***" means the period from and including the first Borrowing Date and through and including the sixteenth (16^{th}) Payment Date following the first Borrowing Date.

"***Interest Period***" means, with respect to each Borrowing, (i) initially, the period commencing on and including the Borrowing Date thereof and ending on and excluding the next Payment Date, and, (ii) thereafter, each period beginning on and including the last day of the immediately preceding Interest Period and ending on and excluding the next succeeding Payment Date.

"***Invention***" means any novel, inventive and useful art, apparatus, method, process, machine (including article or device), manufacture or composition of matter, or any novel, inventive and useful improvement in any art, method, process, machine (including article or device), manufacture or composition of matter.

"***Investment***" means, for any Person: (a) the acquisition (whether for cash, property, services or securities or otherwise) of capital stock, bonds, notes, debentures, partnership or other ownership interests or other securities of any other Person (including any "short sale" or any sale of any securities at a time when such securities are not owned by the Person entering into such sale); (b) the making of any deposit with, or advance, loan or other extension of credit to, any other Person (including the purchase of property from another Person subject to an understanding or agreement, contingent or otherwise, to resell such property to such Person), but excluding any such advance, loan or extension of credit having a term not exceeding 180 days arising in connection with the sale of inventory or supplies by such Person in the ordinary course of business; (c) the entering into of any Guarantee of, or other contingent obligation with respect to, Indebtedness or other liability of any other Person and (without duplication) any amount committed to be advanced, lent or extended to such Person; or (d) the entering into of any Hedging Agreement.

"***IRS***" means the U.S. Internal Revenue Service or any successor agency, and to the extent relevant, the U.S. Department of the Treasury.

"***Knowledge***" means the actual knowledge of any Responsible Officer of Borrower or, so long as he or she is employed by Borrower or its Subsidiaries, the actual knowledge of Erica Rogers and Lucas Buchanan, so long as such Person is an officer of Borrower.

"***Landlord Consent***" means a Landlord Consent substantially in the form of **Exhibit G** or in a form otherwise reasonably satisfactory to the Majority Lenders.

"***Laws***" means, collectively, all international, foreign, federal, state, provincial, territorial, municipal and local statutes, treaties, rules, guidelines, regulations, ordinances, codes and administrative or judicial precedents or authorities, including the interpretation or administration thereof by any Governmental Authority charged with the enforcement, interpretation or administration thereof, and all applicable administrative orders, directed duties, requests, licenses, authorizations and permits of, and agreements with, any Governmental Authority, in each case whether or not having the force of law.

"***Lenders***" means CRG Partners III L.P., CRG Partners III – Parallel Fund "A" L.P., CRG Partners III – Parallel Fund "B" (Cayman) L.P. and CRG Partners III (Cayman) L.P., together with their permitted successors and each assignee of a Lender pursuant to **Section 12.05(b)** and "Lender" means any one of them.

"***Lien***" means any mortgage, lien, pledge, charge or other security interest, or any lease, title retention agreement, mortgage, restriction, easement, right-of-way, option or adverse claim (of ownership or possession) or other encumbrance of any kind or character whatsoever or any preferential arrangement that has the practical effect of creating a security interest.

"***Liquidity***" means the balance of unencumbered (other than Liens securing the Obligations and Liens permitted pursuant to **Section 9.02(c)** and **9.02(j)**, provided that with respect to cash subject to a Permitted Priority Lien in connection with Permitted Priority Debt there is no default under the documentation governing the Permitted Priority Debt) cash and Permitted Cash Equivalent Investments (which for greater certainty shall not include any

undrawn credit lines), in each case, to the extent held in an account over which the Lenders have (or the Control Agent on behalf of the Lenders has) a perfected security interest, subject to Permitted Priority Liens.

"***Loan***" means (i) each loan advanced by a Lender pursuant to **Section 2.01** and (ii) each PIK Loan deemed to have been advanced by a Lender pursuant to **Section 3.02(d)**. For purposes of clarification, any calculation of the aggregate outstanding principal amount of Loans on any date of determination shall include both the aggregate principal amount of loans advanced pursuant to **Section 2.01** and not yet repaid, and all PIK Loans deemed to have been advanced and not yet repaid, on or prior to such date of determination.

"***Loan Documents***" means, collectively, this Agreement, the Fee Letter, the Notes, the Perfection Certificate, the Security Documents, any subordination agreement or any intercreditor agreement entered into by Lenders with any other creditors of Obligors, and any other present or future document, instrument, agreement or certificate executed by Obligors for the benefit of Lenders in connection with this Agreement or any of the other Loan Documents, all as amended, restated, supplemented or otherwise modified.

"***Loss***" means judgments, debts, liabilities, expenses, costs, damages or losses, contingent or otherwise, whether liquidated or unliquidated, matured or unmatured, disputed or undisputed, contractual, legal or equitable, including loss of value, professional fees, including fees and disbursements of legal counsel on a full indemnity basis, and all costs incurred in investigating or pursuing any Claim or any proceeding relating to any Claim.

"***Majority Lenders***" means, at any time, Lenders having at such time in excess of 50% of the aggregate Commitments (or, if such Commitments are terminated, the outstanding principal amount of the Loans) then in effect, ignoring, in such calculation, the Commitments of and outstanding Loans owing to any Defaulting Lender.

"***Management Rights Letter***" means that certain management rights letter dated as of the date hereof between Borrower and the Lenders.

"***Margin Stock***" means "margin stock" within the meaning of Regulations U and X.

"***Material Adverse Change***" and "***Material Adverse Effect***" mean a material adverse change in or effect on (i) the business, condition (financial or otherwise), operations, performance or Property of Borrower and its Subsidiaries taken as a whole, (ii) the ability of Borrower and the Obligors, taken as a whole, to perform their obligations under the Loan Documents, or (iii) the legality, validity, binding effect or enforceability of the Loan Documents or the rights and remedies of the Lenders under any of the Loan Documents.

"***Material Agreements***" means all agreements to which any Obligor is a party, the absence or termination of any of which would reasonably be expected to result in a Material Adverse Effect; *provided, however, that* "Material Agreements" exclude all: (i) licenses implied by the sale of a product; and (ii) paid-up licenses for commonly available software programs under which an Obligor is the licensee. "Material Agreement" means any one such agreement.

The Material Agreements are listed in **Schedule 7.14** (as updated by Borrower from time to time in accordance with **Section 7.21**).

"***Material Indebtedness***" means, at any time, any Permitted Priority Debt and any other Indebtedness of any Obligor, the outstanding principal amount of which, individually or in the aggregate, exceeds $250,000 (or the Equivalent Amount in other currencies).

"***Material Intellectual Property***" means, the Obligor Intellectual Property described in **Schedule 7.05(c)** and any other Obligor Intellectual Property after the date hereof the loss of which could reasonably be expected to have a Material Adverse Effect.

"***Maturity Date***" means the earlier to occur of (i) the Stated Maturity Date, and (ii) the date on which the Loans are accelerated pursuant to **Section 11.02**.

"***Maximum Rate***" has the meaning set forth in **Section 12.18.**

"***Minimum Required Revenue***" has the meaning set forth in **Section in 10.02.**

"***Multiemployer Plan***" means any multiemployer plan, as defined in Section 400l(a)(3) of ERISA, to which any ERISA Affiliate incurs or otherwise has any obligation or liability, contingent or otherwise.

"***Non-Consenting Lender***" has the meaning set forth in **Section 2.07(a)**. "***Non-Disclosure Agreement***" has the meaning set forth in **Section 12.16**.

"***Note***" means a promissory note executed and delivered by Borrower to the Lenders in accordance with **Section 2.04** or **3.02(d)**.

"***Notice of Borrowing***" has the meaning set forth in **Section 2.02**. "***Notice of Default Interest***" has the meaning set forth in **Section 3.02(b)**. "***Notice of Intent to Cure***" has the meaning set forth in **Section 10.03(a)**.

"***Obligations***" means, with respect to any Obligor, all amounts, obligations, liabilities, covenants and duties of every type and description owing by such Obligor to any Lender, any other indemnitee hereunder or the Control Agent, arising out of, under, or in connection with, any Loan Document, whether direct or indirect (regardless of whether acquired by assignment), absolute or contingent, due or to become due, whether liquidated or not, now existing or hereafter arising and however acquired, and whether or not evidenced by any instrument or for the payment of money, including, without duplication, (i) if such Obligor is Borrower, all Loans, (ii) all interest accruing under the Loan Documents, whether or not accruing after the filing of any petition in bankruptcy or after the commencement of any insolvency, reorganization or similar proceeding, and whether or not a claim for post-filing or post-petition interest is allowed in any such proceeding, and (iii) all other fees, expenses (including fees, charges and disbursement of counsel), interest, commissions, charges, costs, disbursements, indemnities and

reimbursement of amounts paid and other sums chargeable to such Obligor under any Loan Document.

"***Obligor Intellectual Property***" means Intellectual Property owned or co-owned by or licensed to any of the Obligors.

"***Obligors***" means, collectively, Borrower and the Subsidiary Guarantors and their respective successors and permitted assigns.

"***Other Connection Taxes***" means, with respect to any Recipient, Taxes imposed as a result of a present or former connection between such Recipient and the jurisdiction imposing such Tax (other than connections arising from such Recipient having executed, delivered, become a party to, performed its obligations under, received payments under, received or perfected a security interest under, engaged in any other transaction pursuant to or enforced any Loan Document, or sold or assigned an interest in any Loan or Loan Document).

"***Other Taxes***" means all present or future stamp, court or documentary, intangible, recording, filing or similar Taxes that arise from any payment made under, from the execution, delivery, performance, enforcement or registration of, from the receipt or perfection of a security interest under, or otherwise with respect to, any Loan Document, except any such Taxes that are Other Connection Taxes imposed with respect to an assignment (other than an assignment made pursuant to **Section 5.03(g)**).

"***Participant***" has the meaning set forth in **Section 12.05(e)**. "***Patents***" is defined in the Security Agreement.

"***Payment Date***" means March 31, June 30, September 30 and December 31 of each year and the Maturity Date, commencing on the first such date to occur following the first Borrowing Date; *provided that*, if any such date shall occur on a day that is not a Business Day, the applicable Payment Date shall be the next preceding Business Day.

"***PBGC***" means the United States Pension Benefit Guaranty Corporation referred to and defined in ERISA and any successor entity performing similar functions.

"***Perfection Certificate***" means that perfection certificate dated as of the date hereof between Borrower and the Control Agent.

"***Permitted Acquisition***" means any acquisition by Borrower or any of its wholly-owned Subsidiaries, whether by purchase, merger or otherwise, of all or substantially all of the assets of, all of the Equity Interests of, or a business line or unit or a division of, any Person; *provided that*:

(a) immediately prior to, and after giving effect thereto, no Default or Event of Default shall have occurred and be continuing or would result therefrom;

(b) all transactions in connection therewith shall be consummated, in all material respects, in accordance with all applicable Laws and in conformity with all applicable Governmental Approvals;

(c) in the case of the acquisition of all of the Equity Interests of such Person, all of the Equity Interests (except for any such securities in the nature of directors' qualifying shares required pursuant to applicable Law) acquired, or otherwise issued by such Person or any newly formed Subsidiary of Borrower in connection with such acquisition, shall be owned 100% by an Obligor or any other Subsidiary, and Borrower shall have taken, or caused to be taken, within 30 days after the date such Person becomes a Subsidiary of Borrower, each of the actions set forth in **Section 8.12**, if applicable;

(d) Borrower and its Subsidiaries shall be in compliance with the financial covenants set forth in **Section 10.01** and **Section 10.02** on a *pro forma* basis after giving effect to such acquisition; and

(e) such Person (in the case of an acquisition of Equity Interests) or assets (in the case of an acquisition of assets or a division) shall be engaged or used, as the case may be, in the same, similar, related or complementary business or lines of business in which Borrower and/or its Subsidiaries are engaged.

"***Permitted Cash Equivalent Investments***" means (i) marketable direct obligations issued or unconditionally guaranteed by the United States or any agency or any State thereof having maturities of not more than two (2) years from the date of acquisition, (ii) commercial paper maturing no more than one (1) year after its creation and having the highest rating from either Standard & Poor's Ratings Group or Moody's Investors Service, Inc., (iii) demand deposit accounts, savings deposit accounts, money market deposit accounts and certificates of deposit maturing no more than eighteen (18) months after issue; and (iv) money market funds complying with Rule 2a-7 under the Investment Company Act of 1940 at least 95% of the assets of which are invested in cash equivalents of the type described in clauses (i) through (iii) above.

"***Permitted Cure Debt***" means Indebtedness incurred in connection with the exercise of the Subordinated Debt Cure Right and (i) that is governed by documentation containing representations, warranties, covenants and events of default no more burdensome or restrictive, taken as a whole, than those contained in the Loan Documents (as mutually determined in good faith by Borrower and Lenders), (ii) that has a final, stated maturity date 181 days after than the Stated Maturity Date, (iii) in respect of which no cash payments of principal or interest are required prior to the Stated Maturity Date (other than solely as a result of a change of control or asset sale, so long as any rights of the holders thereof upon the occurrence of a change of control or asset sale event shall be subject to the prior indefeasible repayment in full in cash of the Loans and all other Obligations that are accrued and payable and the termination or expiration of the Commitments), and (iv) in respect of which the holders have agreed in favor of Borrower and Lenders (A) that prior to the date on which the Commitments have expired or been terminated and all Obligations (other than contingent obligations for which no claim has been made to Borrower) have been paid in full indefeasibly in cash, such holders will not exercise any remedies available to them in respect of such Indebtedness, except to the extent otherwise permitted under the applicable Subordination Agreement, and (B) that such Indebtedness is unsecured, and (C) to terms of subordination in substantially the form attached hereto as **Exhibit H** or otherwise satisfactory to the Majority Lenders.

"***Permitted Holders***" means Warburg Pincus Private Equity X, L.P., a Delaware limited partnership, and its affiliates.

"***Permitted Indebtedness***" means any Indebtedness permitted under **Section 9.01**.

"***Permitted Liens***" means any Liens permitted under **Section 9.02**.

"***Permitted Priority Debt***" means Indebtedness of Obligors, in an aggregate principal amount at any time outstanding not to exceed 80% of the face amount at such time of such Obligors' eligible Accounts Receivable securing such Indebtedness; *provided that* (a) such Indebtedness, if secured, is secured by a first priority security interest in such Obligors' Accounts Receivable (and related chattel paper, instruments, payment intangibles, supporting obligations and documents), inventory and cash proceeds thereof (including cash proceeds which shall be held in a segregated account), and (b) the holders or lenders thereof have executed and delivered to Lenders an intercreditor agreement in substantially the form of **Exhibit I** and with such changes thereto (if any) or such other form as may be satisfactory to the Majority Lenders.

"***Permitted Priority Liens***" means (i) Liens permitted under **Section 9.02(c), (d), (e), (f), (g), (j)**, **(k)**, **(n)**, **(o)**, **(p)**, **(q)**, **(r)** and **(u)** and (ii) Liens permitted under **Section 9.02(b)** *provided* that such Liens are also of the type described in **Section 9.02(c), (d), (e), (f), (g), (j)**, **(k)**, **(n)**, **(o)**, **(p)**, **(q)**, **(r)** and **(u)**.

"***Permitted Refinancing***" means, with respect to any Indebtedness, any extensions, renewals, refinancings and replacements of such Indebtedness; *provided that* (i) the principal amount of such extension, renewal, refinancing or replacement shall not exceed the outstanding principal amount of the existing Indebtedness plus accrued and unpaid interest and premiums thereon, (ii) such extension, renewal, refinancing or replacement contains terms relating to outstanding principal amount, amortization, maturity, collateral (if any) and subordination (if any), and other material terms taken as a whole no less favorable, taken as a whole, in any material respect to Borrower and its Subsidiaries or the Lenders than the terms of any agreement or instrument governing such existing Indebtedness (as jointly determined by Borrower and Lenders in good faith), (iii) such extension, renewal, refinancing or replacement shall have an applicable interest rate which does not exceed the rate of interest of the Indebtedness being replaced by more than 3.0% per annum, and (iv) such extension, renewal, refinancing or replacement shall not contain any new requirement to grant any lien or security or to give any guarantee that was not an existing requirement of such Indebtedness.

"***Person***" means any individual, corporation, company, voluntary association, partnership, limited liability company, joint venture, trust, unincorporated organization or Governmental Authority or other entity of whatever nature.

"***PIK Loan***" has the meaning set forth in **Section 3.02(d)**.

"***PIK Period***" means the period beginning on the first Borrowing Date through and including the earlier to occur of (i) the sixteenth (16^{th}) Payment Date after the first Borrowing Date and (ii) the date on which any Default shall have occurred (*provided that* if such Default shall have been cured or waived, the PIK Period shall resume until the earlier to occur of the next Default and the sixteenth (16^{th}) Payment Date after the first Borrowing Date).

"***Prepayment Premium***" has the meaning set forth in **Section 3.03(a)**.

"***Product***" means all Borrower's products, and each of their respective successors.

"***Property***" of any Person means any property or assets, or interest therein, of such Person.

"***Proportionate Share***" means, with respect to any Lender, the percentage obtained by dividing (a) the Commitment (or, if the Commitments are terminated, the outstanding principal amount of the Loans) of such Lender then in effect by (b) the sum of the Commitments (or, if the Commitments are terminated, the outstanding principal amount of the Loans) of all Lenders then in effect.

"Publicly Reporting Company" means an issuer generally subject to the public reporting requirements of the Securities and Exchange Act of 1934.

"***Qualified Financing***" means the sale and issuance by Borrower after the date hereof and after the consummation of the Required Equity Financing of Equity Interests (other than Equity Interests that constitute Indebtedness of Borrower) in a single transaction or series of related transactions that are unrelated to the Required Equity Financing or the exercise of the Cure Right.

"***Real Property Security Documents***" means the Landlord Consent and any mortgage or deed of trust or any other real property security document executed or required hereunder to be executed by any Obligor and granting a security interest in real Property owned or leased (as tenant) by any Obligor in favor of the Lenders.

"***Recipient***" means any Lender.

"***Redemption Date***" has the meaning set forth in **Section 3.03(a)**. "***Redemption Price***" has the meaning set forth in **Section 3.03(a)**. "***Register***" has the meaning set forth in **Section 12.05(d)**.

"***Regulation T***" means Regulation T of the Board of Governors of the Federal Reserve System, as amended.

"***Regulation U***" means Regulation U of the Board of Governors of the Federal Reserve System, as amended.

"***Regulation X***" means Regulation X of the Board of Governors of the Federal Reserve System, as amended.

"***Regulatory Approvals***" means any registrations, licenses, authorizations, permits or approvals issued by any Governmental Authority and applications or submissions related to any of the foregoing.

"***Required Equity Financing***" has the meaning set forth in **Section 6.01(h)**.

"***Requirement of Law***" means, as to any Person, any statute, law, treaty, rule or regulation or determination, order, injunction or judgment of an arbitrator or a court or other Governmental Authority, in each case applicable to or binding upon such Person or any of its Properties or revenues.

"***Responsible Officer***" of any Person means each of the president, chief executive officer, chief financial officer and vice president, finance of such Person.

"***Restricted Payment***" means any dividend or other distribution (whether in cash, securities or other property) with respect to any Equity Interest of Borrower or any of its Subsidiaries, or any payment (whether in cash, securities or other property), including any sinking fund or similar deposit, on account of the purchase, redemption, retirement, acquisition, cancellation or termination of any such shares of capital stock of Borrower or any of its Subsidiaries or any option, warrant or other right to acquire any such shares of capital stock of Borrower or any of its Subsidiaries.

"***Restrictive Agreement***" has the meaning set forth in **Section 7.15**.

"***Revenue***" of a Person means all revenue properly recognized under GAAP, consistently applied, less (to the extent no already deducted from GAAP revenue) all rebates, discounts and other price allowances in accordance with GAAP.

"**SEC**" means the United States Securities and Exchange Commission or any successor thereto.

"***Second Draw Milestone***" has the meaning set forth in **Section 6.02(c)**.

"***Security Agreement***" means the Security Agreement, dated as of the date hereof, among the Obligors, the Lenders and the Control Agent, granting a security interest in the Obligors' personal Property in favor of the Lenders.

"***Security Documents***" means, collectively, the Security Agreement, each Short-Form IP Security Agreement, each Real Property Security Document, and each other security document, control agreement or financing statement to which an Obligor is a party and which creates Liens in favor of the Lenders or the Control Agent for the benefit of the Lenders.

"***Securities Account***" has the meaning set forth in the Security Agreement.

"***Short-Form IP Security Agreements***" means short-form copyright, patent or trademark (as the case may be) security agreements, dated as of the date hereof, entered into by one or more Obligors in favor of the Lenders, each in form and substance satisfactory to the Majority Lenders (and as amended, modified or replaced from time to time).

"***Solvent***" means, with respect to any Person at any time, that (a) the present fair saleable value of the Property of such Person is greater than the total amount of liabilities (including contingent liabilities) of such Person, (b) the present fair saleable value of the Property of such

Person is not less than the amount that will be required to pay the probable liability of such Person on its debts as they become absolute and matured, and (c) such Person has not incurred and does not intend to, and does not believe that it will, incur debts or liabilities beyond such Person's ability to pay as such debts and liabilities mature. The amount of contingent liabilities at any time shall be computed in conformity with GAAP.

"***Specified Financial Covenants***" has the meaning set forth in **Section 10.03(a)**.

"***Stated Maturity Date***" means the twenty-fourth (24^{th}) Payment Date following the first Borrowing Date.

"***Subordinated Debt Cure Right***" has the meaning set forth in **Section 10.03(a)**.

"***Subsidiary***" means, with respect to any Person, a corporation, partnership, limited liability company or other entity of which such Person owns, directly or indirectly, such number of outstanding shares of voting Stock or Stock Equivalents as to have more than 50% of the ordinary voting power for the election of directors or other managers of such corporation, partnership, limited liability company or other entity. Unless the context otherwise requires, each reference to Subsidiaries herein shall be a reference to Subsidiaries of Borrower. For the avoidance of doubt, the parties acknowledge and agree that so long as neither Borrower nor any of its Subsidiaries owns any Equity Interests in NeuroCo., Inc., a Delaware corporation, NeuroCo., Inc. does not constitute a Subsidiary of Borrower.

"***Subsidiary Guarantors***" means each of the Subsidiaries of Borrower identified under the caption "SUBSIDIARY GUARANTORS" on the signature pages hereto and each Subsidiary of Borrower that becomes, or is required to become, a "Subsidiary Guarantor" after the date hereof pursuant to **Section 8.12(a) or (b)**.

"***Substitute Lender***" has the meaning set forth in **Section 2.07(a)**.

"***Taxes***" means all present or future taxes, levies, imposts, duties, deductions, withholdings (including backup withholding), assessments, fees or other charges imposed by any Governmental Authority, including any interest, additions to tax or penalties applicable thereto.

"***Technical Information***" means all trade secrets and other proprietary or confidential information, public information, non-proprietary know-how, any information of a scientific, technical, or business nature in any form or medium, standards and specifications, conceptions, ideas, innovations, discoveries, Invention disclosures, all documented research, developmental, demonstration or engineering work and all other information, data, plans, specifications, reports, summaries, experimental data, manuals, models, samples, know-how, technical information, systems, methodologies, computer programs, information technology and any other information.

"***Title IV Plan***" means an employee pension benefit plan (as defined in Section 3(3) of ERISA) other than a Multiemployer Plan (i) that is or was at any time maintained or sponsored by any Obligor or any ERISA Affiliate thereof or to which any Obligor or any ERISA Affiliate thereof has ever made, or was obligated to make, contributions, and (ii) that is or was subject to Section 412 of the Code, Section 302 of ERISA or Title IV of ERISA.

"***Trademarks***" is defined in the Security Agreement.

"***Transactions***" means the execution, delivery and performance by each Obligor of this Agreement and the other Loan Documents to which such Obligor is a party and the Borrowings.

"***U.S. Person***" means a "United States Person" within the meaning of Section 7701(a)(30) of the Code.

"***U.S. Tax Compliance Certificate***" has the meaning set forth in **Section 5.03(e)(ii)(B)(3)**.

"***Withdrawal Liability***" means, at any time, any liability incurred (whether or not assessed) by any ERISA Affiliate and not yet satisfied or paid in full at such time with respect to any Multiemployer Plan pursuant to Section 4201 of ERISA.

1.02 Accounting Terms and Principles. All accounting determinations required to be made pursuant hereto shall, unless expressly otherwise provided herein, be made in accordance with GAAP; *provided that*, for purposes of determining compliance with any covenant contained in **Section 9** or the existence of any Default or Event of Default under **Section 11**, in determining whether any lease is required to be accounted for as a capital lease or an operating lease, such determination shall be made based on GAAP as in effect on the date of this Agreement. All components of financial calculations made to determine compliance with this Agreement, including **Section 10**, shall be adjusted to include or exclude, as the case may be, without duplication, such components of such calculations attributable to any Acquisition consummated after the first day of the applicable period of determination and prior to the end of such period, as if such Acquisition had occurred on the first day of the applicable period, as determined in good faith by Borrower based on assumptions expressed therein and that were reasonable based on the information available to Borrower at the time of preparation of the Compliance Certificate setting forth such calculations.

1.03 Interpretation. For all purposes of this Agreement, except as otherwise expressly provided herein or unless the context otherwise requires, (a) the terms defined in this Agreement include the plural as well as the singular and vice versa; (b) words importing gender include all genders; (c) any reference to a Section, Annex, Schedule or Exhibit refers to a Section of, or Annex, Schedule or Exhibit to, this Agreement; (d) any reference to "this Agreement" refers to this Agreement, including all Annexes, Schedules and Exhibits hereto, and the words herein, hereof, hereto and hereunder and words of similar import refer to this Agreement and its Annexes, Schedules and Exhibits as a whole and not to any particular Section, Annex, Schedule, Exhibit or any other subdivision; (e) references to days, months and years refer to calendar days, months and years, respectively; (f) all references herein to "include" or "including" shall be deemed to be followed by the words "without limitation"; (g) the word "from" when used in connection with a period of time means "from and including" and the word "until" means "to but not including"; and (h) accounting terms not specifically defined herein shall be construed in accordance with GAAP (except for the term "property" , which shall be interpreted as broadly as possible, including, in any case, cash, securities, other assets, rights under contractual obligations and permits and any right or interest in any property, except where otherwise noted). Unless otherwise expressly provided herein, references to organizational documents, agreements

(including the Loan Documents) and other contractual instruments shall be deemed to include all permitted subsequent amendments, restatements, extensions, supplements and other modifications thereto.

1.04 Changes to GAAP. Subject to **Section 1.02**, if, after the date hereof, any change occurs in GAAP or in the application thereof and such change would cause any amount required to be determined for the purposes of the covenants to be maintained or calculated pursuant to **Section 8**, **9** or **10** to be materially different than the amount that would be determined prior to such change, then:

(a) Borrower will provide a detailed notice of such change (an "***Accounting Change Notice***") to the Lenders within 30 days of a Responsible Officer's knowledge of such change;

(b) either Borrower or the Majority Lenders may indicate within 90 days following the date of the Accounting Change Notice that they wish to revise the method of calculating such financial covenants or amend any such amount, in which case the parties will in good faith attempt to agree upon a revised method for calculating the financial covenants;

(c) until Borrower and the Majority Lenders have reached agreement on such revisions, (i) such financial covenants or amounts will be determined without giving effect to such change and (ii) all financial statements, Compliance Certificates and similar documents provided hereunder shall be provided together with a reconciliation between the calculations and amounts set forth therein before and after giving effect to such change in GAAP;

(d) if no party elects to revise the method of calculating the financial covenants or amounts, then the financial covenants or amounts will not be revised and will be determined in accordance with GAAP without giving effect to such change; and

(e) any Event of Default arising as a result of such change which is cured by operation of this **Section 1.04** shall be deemed to be of no effect *ab initio*.

SECTION 2
THE COMMITMENT

2.01 Commitments. Each Lender agrees severally, on and subject to the terms and conditions of this Agreement (including **Section 6**), to make up to two term loans (*provided* that PIK Loans shall be deemed not to constitute "term loans" for purposes of this **Section 2.01**) to Borrower, each on a Business Day during the Commitment Period in Dollars in an aggregate principal amount for such Lender not to exceed such Lender's Commitment; *provided*, *however*, that at no time shall any Lender be obligated to make a Loan in excess of such Lender's Proportionate Share of the amount by which the then effective Commitments exceed the aggregate principal amount of Loans (excluding PIK Loans) made by such Lender pursuant hereto. Amounts of Loans repaid may not be reborrowed.

2.02 Borrowing Procedures. Subject to the terms and conditions of this Agreement (including **Section 6**), each Borrowing (other than a Borrowing of PIK Loans) shall be made on written notice in the form of **Exhibit B** given by Borrower to the Lenders not later than 11:00 a.m. (Central time) on the Borrowing Notice Date (a "***Notice of Borrowing***").

2.03 Fees. Borrower shall pay to the Lenders such fees as described in the Fee Letter.

2.04 Notes. If requested by any Lender, the Loans of such Lender shall be evidenced by one or more promissory notes (each a "***Note***"). Borrower shall prepare, execute and deliver to such requesting Lender such promissory note(s) payable to such Lender (or, if requested by any Lender, to such Lender and its registered assigns) and in the form attached hereto as **Exhibit C-1**. Thereafter, the Loans and interest thereon shall at all times (including after assignment pursuant to **Section 12.05**) be represented by one or more promissory notes in such form payable to the payee named therein (or, if such promissory note is a registered note, to such payee and its registered assigns).

2.05 Use of Proceeds. Borrower shall use the proceeds of the Loans for general working capital purposes and general corporate purposes and to pay fees, costs and expenses incurred in connection with the Transactions.

2.06 Defaulting Lenders.

(a) **Adjustments**. Notwithstanding anything to the contrary contained in this Agreement, if any Lender becomes a Defaulting Lender, then, until such time as that Lender is no longer a Defaulting Lender, to the extent permitted by applicable law:

(i) **Waivers and Amendments**. Such Defaulting Lender's right to approve or disapprove any amendment, waiver or consent with respect to this Agreement shall be restricted as set forth in **Section 12.04**.

(ii) **Reallocation of Payments**. Any payment of principal, interest, fees or other amounts received by the Lenders for the account of such Defaulting Lender (whether voluntary or mandatory, at maturity, pursuant to **Section 11** or otherwise), shall be applied at such time or times as follows: first, as Borrower may request (so long as no Default exists), to the funding of any Loan in respect of which such Defaulting Lender has failed to fund its portion thereof as required by this Agreement; second, if so determined by the Majority Lenders and Borrower, to be held in a non-interest bearing deposit account and released in order to satisfy obligations of such Defaulting Lender to fund Loans under this Agreement; third, to the payment of any amounts owing to the Lenders as a result of any judgment of a court of competent jurisdiction obtained by any Lender against such Defaulting Lender as a result of such Defaulting Lender's breach of its obligations under this Agreement; fourth, so long as no Default exists, to the payment of any amounts owing to Borrower as a result of any judgment of a court of competent jurisdiction obtained by Borrower against such Defaulting Lender as a result of such Defaulting Lender's breach of its obligations under this Agreement; and fifth, to such Defaulting Lender or as otherwise directed by a court of competent jurisdiction; provided that if (A) such payment is a payment of the principal amount of any Loans in respect of which such Defaulting Lender has not fully funded its appropriate share and (B) such Loans were made at a time when the conditions set forth in **Section 6** were satisfied or waived, such payment shall be applied solely to pay the Loans of all non-Defaulting Lenders on a *pro rata* basis prior to being applied to the payment of any Loans of such Defaulting Lender. Any payments, prepayments or other amounts paid or payable to a Defaulting Lender that are applied (or held) to pay amounts owed

by a Defaulting Lender pursuant to this **Section 2.06(a)(ii)** shall be deemed paid to and redirected by such Defaulting Lender, and each Lender irrevocably consents hereto.

(b) **Defaulting Lender Cure**. If Borrower and the Majority Lenders agree in writing in their sole discretion that a Defaulting Lender should no longer be deemed to be a Defaulting Lender, that Lender will, to the extent applicable, purchase that portion of outstanding Loans of the other Lenders or take such other actions as necessary to cause the Loans to be held on a *pro rata* basis by the Lenders in accordance with their Proportionate Share, whereupon that Lender will cease to be a Defaulting Lender; provided that no adjustments will be made retroactively with respect to fees accrued or payments made by or on behalf of Borrower while that Lender was a Defaulting Lender; and provided, further, that except to the extent otherwise expressly agreed by the affected parties, no change hereunder from Defaulting Lender to Lender will constitute a waiver or release of any claim of any party hereunder arising from that Lender's having been a Defaulting Lender.

2.07 Substitution of Lenders.

(a) **Substitution Right**. If any Lender (an "***Affected Lender***"), (i) becomes a Defaulting Lender or (ii) does not consent to any amendment, waiver or consent to any Loan Document for which the consent of the Majority Lenders is obtained but that requires the consent of other Lenders (a "***Non-Consenting Lender***"), then (x) Borrower may elect to pay in full such Affected Lender with respect to all Obligations due to such Affected Lender or (y) either Borrower or the Majority Lenders shall identify any willing Lender or Affiliate of any Lender or Eligible Transferee (in each case, a "***Substitute Lender***") to substitute for such Affected Lender; *provided that* any substitution of a Non-Consenting Lender shall occur only with the consent of Majority Lenders.

(b) **Procedure**. To substitute such Affected Lender or pay in full all Obligations due and payable to such Affected Lender, Borrower shall deliver a notice to such Affected Lender. The effectiveness of such payment or substitution shall be subject to the delivery by Borrower (or, as may be applicable in the case of a substitution, by the Substitute Lender) of (i) payment for the account of such Affected Lender, of, to the extent accrued through, and outstanding on, the effective date for such payment or substitution, all Obligations owing to such Affected Lender (which for the avoidance of doubt, shall not include any Prepayment Premium) and (ii) in the case of a substitution, an Assignment and Assumption executed by the Substitute Lender, which shall thereunder, among other things, agree to be bound by the terms of the Loan Documents.

(c) **Effectiveness**. Upon satisfaction of the conditions set forth in **Section 2.07(a)** and **(b)**, the Control Agent shall record such substitution or payment in the Register, whereupon (i) in the case of any payment in full of an Affected Lender, such Affected Lender's Commitments shall be terminated and (ii) in the case of any substitution of an Affected Lender, (A) such Affected Lender shall sell and be relieved of, and the Substitute Lender shall purchase and assume, all rights and claims of such Affected Lender under the Loan Documents, except that the Affected Lender shall retain such rights under the Loan Documents that expressly provide that they survive the repayment of the Obligations and the termination of the Commitments, (B) such Affected Lender shall no longer constitute a "Lender" hereunder and

such Substitute Lender shall become a "Lender" hereunder and (C) such Affected Lender shall execute and deliver an Assignment and Assumption to evidence such substitution; *provided*, *however*, that the failure of any Affected Lender to execute any such Assignment and Assumption shall not render such sale and purchase (or the corresponding assignment) invalid.

SECTION 3
PAYMENTS OF PRINCIPAL AND INTEREST

3.01 Repayment.

(a) **Repayment**. During the Interest-Only Period, no scheduled payments of principal of the Loans shall be due. Borrower agrees to repay to the Lenders the outstanding principal amount of the Loans, on each Payment Date occurring after the Interest-Only Period, in equal installments. The amounts of such installments shall be calculated by dividing (i) the sum of the aggregate principal amount of the Loans outstanding on the first day following the end of the Interest-Only Period, by (b) the number of Payment Dates remaining prior to and including the Stated Maturity Date.

(b) **Application**. Any optional or mandatory prepayment of the Loans shall be applied to the installments thereof under **Section 3.01(a)** ratably and the amount of the installments of principal due on each subsequent Payment Date shall be recalculated to give effect to such prepayment. To the extent not previously paid, the principal amount of the Loans, together with all other outstanding Obligations, shall be due and payable on the Maturity Date.

3.02 Interest.

(a) **Interest Generally**. Subject to **Section 3.02(d)**, Borrower agrees to pay to the Lenders interest on the unpaid principal amount of the Loans and the amount of all other outstanding Obligations, in the case of the Loans, for the period from the applicable Borrowing Date, and in the case of any other Obligation, from the date such other Obligation is due and payable, in each case, until paid in full, at a rate *per annum* equal to 13.00%.

(b) **Default Interest**. Notwithstanding the foregoing, if an Event of Default has occurred and is continuing, as of the earlier of (i) the date on which the Lenders deliver to Borrower a written notice pursuant to this **Section 3.02(b)** (such notice, a "***Notice of Default Interest***") that the Loans shall bear interest at the Post-Default Rate because an Event of Default has occurred and is continuing, and (ii) if Borrower shall have failed to deliver notice pursuant to **Section 8.02(a)** of such Event of Default or upon the occurrence of an Event of Default under **Section 11.01(i), (j) or (k)**, the date on which such Event of Default occurred, and during the continuance of any such Event of Default, the interest payable pursuant to **Section 3.02(a)** shall increase by 4.00% *per annum* (such aggregate increased rate, the "***Default Rate***"). Notwithstanding any other provision herein (including **Section 3.02(d)**), if interest is required to be paid at the Default Rate, it shall be paid entirely in cash. If any other Obligation is not paid when due under the applicable Loan Document, the amount thereof shall accrue interest at a rate equal to 4.00% *per annum* (without duplication of interest payable at the Default Rate).

(c) **Interest Payment Dates**. Subject to **Section 3.02(d)**, accrued interest on the Loans shall be payable in arrears on each Payment Date with respect to the most recently

completed Interest Period in cash, and upon the payment or prepayment of the Loans (on the principal amount being so paid or prepaid); *provided that* interest payable at the Default Rate shall be payable from time to time on demand.

(d) **Paid In-Kind Interest**. Notwithstanding **Section 3.01(a)**, at any time during the PIK Period, Borrower may elect to pay the interest on the outstanding principal amount of the Loans payable pursuant to **Section 3.01** as follows: (i) only 8.50% of the 13.00% *per annum* interest in cash and (ii) 4.50% of the 13.00% *per annum* interest as compounded interest, added to the aggregate principal amount of the Loans (the amount of any such compounded interest being a "***PIK Loan***"). At the request of any Lender, the PIK Loan of such Lender may be evidenced by a Note in the form of **Exhibit C-2**. The principal amount of each PIK Loan shall accrue interest in accordance with the provisions of this Agreement applicable to the Loans.

3.03 Prepayments.

(a) **Optional Prepayments**. Borrower shall have the right to optionally prepay the outstanding principal amount of the Loans in whole or in part at any time or from time to time (such prepayment date, a "***Redemption Date***") for an amount equal to the aggregate principal amount of the Loans being prepaid plus any accrued but unpaid interest thereon plus the Prepayment Premium in respect of the principal amount being prepaid and any fees then due and owing (such aggregate amount, the "***Redemption Price***"). The applicable "***Prepayment Premium***" shall be an amount calculated pursuant to **Section 3.03(a)(i)**.

(i) If the Redemption Date occurs:

(A) on or prior to the fourth (4^{th}) Payment Date, the Prepayment Premium shall be an amount equal to 8.00% of the aggregate outstanding principal amount of the Loans being prepaid on such Redemption Date;

(B) after the fourth (4^{th}) Payment Date, and on or prior to the eighth (8^{th}) Payment Date, the Prepayment Premium shall be an amount equal to 4.00% of the aggregate outstanding principal amount of the Loans being prepaid on such Redemption Date;

(C) after the eighth (8^{th}) Payment Date, and on or prior to the twelfth (12^{th}) Payment Date, the Prepayment Premium shall be an amount equal to 2.00% of the aggregate outstanding principal amount of the Loans being prepaid on such Redemption Date;

(D) after the twelfth (12^{th}) Payment Date, the Prepayment Premium shall be an amount equal to 0.00% of the aggregate outstanding principal amount of the Loans being prepaid on such Redemption Date.

(ii) To determine the aggregate outstanding principal amount of the Loans, and how many Payment Dates have occurred, as of any Redemption Date for purposes of **Section 3.03(a)**:

(A) if, as of such Redemption Date, Borrower shall have made only one Borrowing, the number of Payment Dates shall be deemed to be the number of Payment Dates that shall have occurred following the first Borrowing Date;

(B) if, as of such Redemption Date, Borrower shall have made more than one Borrowing (excluding Borrowings of PIK Loans), then the Redemption Price shall equal the sum of multiple Redemption Prices calculated with respect to the Loans of each such Borrowing (together with PIK Loans subsequently borrowed in respect of interest payments thereon), each of which Redemption Prices shall be calculated based on solely the aggregate outstanding principal amount of the Loans borrowed in such Borrowing (and PIK Loans subsequently borrowed in respect of interest payments thereon), as though the applicable number of Payment Dates equals the number of Payment Dates that shall have occurred following the applicable Borrowing Date. In the case of any partial prepayment, the amount of such prepayment shall be allocated to Loans made in the various Borrowings (and PIK Loans in respect thereof) in the order in which such Borrowings were made;

(iii) No partial prepayment shall be made under this **Section 3.03(a)** in connection with any event described in **Section 3.03(b)(ii)**.

(iv) The Prepayment Premium in this **Section 3.03(a)** shall be in addition to any payments required under the Fee Letter.

(b) **Mandatory Prepayments.**

(i) **Asset Sales**. In the event of any proposed Asset Sale or series of Asset Sales (other than any Asset Sale permitted under **Section 9.09(a)** through **(l)** except **Section 9.09(g**), *provided that* with respect to Asset Sales permitted under **Section 9.09(e)**, dispositions of Property other than equipment shall be subject to this **Section 3.03(b)**) yielding Asset Sale Net Proceeds in excess of $1,000,000, Borrower shall provide written notice at least 30 days prior to the consummation of such Asset Sale to the Lenders and, if within such notice period Majority Lenders advise Borrower that a prepayment is required pursuant to this **Section 3.03(b)(i)**, Borrower shall not later than 5 Business Days after the consummation of such Asset Sale: (x) if the assets sold represent substantially all of the assets or revenues of Borrower, or represent any specific line of business which either on its own or together with other lines of business sold over the term of this Agreement account for revenue generated by such lines of business exceeding 15% of the revenue of Borrower in the immediately preceding year, prepay the aggregate outstanding principal amount of the Loans in an amount equal to the Redemption Price applicable on the date of such prepayment in accordance with **Section 3.03(a)**, and (y) in the case of all other Asset Sales not described in the foregoing **clause (x)**, prepay the Loans in an amount equal to the entire amount of the Asset Sale Net Proceeds of such Asset Sale, plus any accrued but unpaid interest on the principal amount of the Loans being prepaid and any fees then due and owing, credited in the following order:

(A) first, in reduction of Borrower’s obligation to pay any unpaid interest and any fees then due and owing (including fees payable pursuant to the Fee Letter);

(B) second, in reduction of Borrower’s obligation to pay any Claims or Losses referred to in **Section 12.03** then due and owing;

(C) third, in reduction of Borrower’s obligation to pay any amounts due and owing on account of the unpaid principal amount of the Loans;

(D) fourth, in reduction of any other Obligation then due and owing; and

(E) fifth, to Borrower or such other Persons as may lawfully be entitled to or directed by Borrower to receive the remainder.

(ii) **Change of Control**. If a Change of Control occurs, Borrower immediately, and in any event within 1 Business Day after the occurrence thereof, provide notice of such Change of Control to the Lenders and, if within 10 days of receipt of such notice Majority Lenders notify Borrower in writing that a prepayment is required pursuant to this **Section 3.03(b)(ii)**, Borrower shall prepay the aggregate outstanding principal amount of the Loans in an amount equal to the Redemption Price applicable on the date of such Change of Control in accordance with **Section 3.03(a)** and any fees payable pursuant to the Fee Letter.

(iii) **AHYDO Catch-Up Payment**. Notwithstanding anything to the contrary herein, if a Loan would otherwise constitute an "applicable high yield discount obligation" within the meaning of Section 163(i) of the Code, on each Payment Date after the fifth anniversary of the Borrowing Date (treating the Borrowing Date for a PIK Loan for this purpose as the Borrowing Date for the Loan with respect to which Borrower elects to pay interest in kind pursuant to **Section 3.02(d)**), Borrower shall pay in cash the accrued and unpaid interest and original issue discount (determined in accordance with Treasury Regulations §§ 1.1272-1 and 1.1273-1, and treating any cash payments made pursuant to this Agreement, including **Section 3.01**, **Section 3.02** or **Section 3.03**, as a payment of interest or original issue discount to the extent required by Treasury Regulations §1.1275-2(a)) in the minimum amount necessary to ensure that the Loan shall not constitute an "applicable high yield discount obligation."

SECTION 4
PAYMENTS, ETC.

4.01 Payments.

(a) **Payments Generally**. Each payment of principal, interest and other amounts to be made by the Obligors under this Agreement or any other Loan Document shall be made in Dollars, in immediately available funds, without deduction, set off or counterclaim, to an account to be designated by the Majority Lenders by notice to Borrower, not later than 4:00 p.m. (Central time) on the date on which such payment shall become due (each such payment made after such time on such due date to be deemed to have been made on the next succeeding Business Day).

(b) **Application of Payments**. Each Obligor shall, at the time of making each payment under this Agreement or any other Loan Document, specify to the Lenders the amounts payable by such Obligor hereunder to which such payment is to be applied (and in the event that Obligors fail to so specify, or if an Event of Default has occurred and is continuing, the Lenders may apply such payment in the manner they determine to be appropriate).

(c) **Non-Business Days**. If the due date of any payment under this Agreement (other than of principal of or interest on the Loans) would otherwise fall on a day that is not a Business Day, such date shall be extended to the next succeeding Business Day, and, in the case of any payment accruing interest, interest thereon shall be payable for the period of such extension.

4.02 Computations. All computations of interest and fees hereunder shall be computed on the basis of a year of 360 days and actual days elapsed during the period for which payable.

4.03 Notices. Each notice of optional prepayment shall be effective only if received by the Lenders not later than 4:00 p.m. (Central time) on the date one Business Day prior to the date of prepayment. Each notice of optional prepayment shall specify the amount to be prepaid and the date of prepayment and may be conditioned upon the consummation of other transactions.

4.04 Set-Off.

(a) **Set-Off Generally**. Upon the occurrence and during the continuance of any Event of Default, the Lenders and each of their Affiliates are hereby authorized at any time and from time to time, to the fullest extent permitted by law, to set off and apply any and all deposits (general or special, time or demand, provisional or final) at any time held and other indebtedness at any time owing by the Lenders or such Affiliates to or for the credit or the account of Borrower against any and all of the Obligations, whether or not the Lenders shall have made any demand and although such obligations may be unmatured. The Lenders agree promptly to notify Borrower after any such set-off and application, provided that the failure to give such notice shall not affect the validity of such set-off and application. The rights of the Lenders and their Affiliates under this **Section 4.04** are in addition to other rights and remedies (including other rights of set-off) that the Lenders and their Affiliates may have.

(b) **Exercise of Rights Not Required**. Nothing contained herein shall require the Lenders to exercise any such right or shall affect the right of the Lenders to exercise, and retain the benefits of exercising, any such right with respect to any other indebtedness or obligation of Borrower.

SECTION 5
YIELD PROTECTION, ETC.

5.01 Additional Costs.

(a) **Change in Requirements of Law Generally**. If, on or after the date hereof, the adoption of any Requirement of Law, or any change in any Requirement of Law, or any change in the interpretation or administration thereof by any court or other Governmental Authority charged with the interpretation or administration thereof, or compliance by any of the Lenders (or its lending office) with any request or directive (whether or not having the force of law) of any such Governmental Authority, shall impose, modify or deem applicable any reserve (including any such requirement imposed by the Board of Governors of the Federal Reserve System), special deposit, contribution, insurance assessment or similar requirement, in each case that becomes effective after the date hereof, against assets of, deposits with or for the account of, or credit extended by, a Lender (or its lending office) or shall impose on a Lender (or its lending office) any other condition affecting its Loans or its Commitment, and the result of any of the foregoing is to increase the cost to such Lender of making or maintaining its Loans, or to reduce the amount of any sum received or receivable by such Lender under this Agreement or any other Loan Document, by an amount reasonably deemed by such Lender to be material (other than (i) Indemnified Taxes, (ii) Taxes described in **clause (b)**, **(c)** or **(d)** of the definition of “Excluded

Taxes" and (iii) Connection Income Taxes), then Borrower shall pay to such Lender on demand such additional amount or amounts as will compensate such Lender for such increased cost or reduction. Borrower shall not be required to compensate any Lender for any increased cost or reduction in payment incurred or arising more than 180 days prior to the date such Lender notifies Borrower of the change giving rise to such increased cost or payment reduction provided that such Lender has actual knowledge of such change during such 180 day period.

(b) **Change in Capital Requirements**. If a Lender shall have determined that, on or after the date hereof, the adoption of any Requirement of Law regarding capital adequacy, or any change therein, or any change in the interpretation or administration thereof by any Governmental Authority charged with the interpretation or administration thereof, or any request or directive regarding capital adequacy (whether or not having the force of law) of any such Governmental Authority, in each case that becomes effective after the date hereof, has or would have the effect of reducing the rate of return on capital of a Lender (or its parent) as a consequence of a Lender's obligations hereunder or the Loans to a level below that which a Lender (or its parent) could have achieved but for such adoption, change, request or directive by an amount reasonably deemed by it to be material, then Borrower shall pay to such Lender on demand such additional amount or amounts as will compensate such Lender (or its parent) for such reduction.

(c) **Notification by Lender**. The Lenders will promptly notify Borrower of any event of which it has knowledge, occurring after the date hereof, which will entitle a Lender to compensation pursuant to this **Section 5.01**. Before giving any such notice pursuant to this **Section 5.01(c)** such Lender shall designate a different lending office if such designation (x) will, in the reasonable judgment of such Lender, avoid the need for, or reduce the amount of, such compensation and (y) will not, in the reasonable judgment of such Lender, be materially disadvantageous to such Lender. A certificate of the Lender claiming compensation under this **Section 5.01**, setting forth in reasonable detail the additional amount or amounts to be paid to it hereunder, shall be conclusive and binding on Borrower in the absence of manifest error.

(d) Notwithstanding anything herein to the contrary, (x) the Dodd-Frank Wall Street Reform and Consumer Protection Act and all requests, rules, guidelines or directives thereunder or issued in connection therewith and (y) all requests, rules, guidelines or directives promulgated by the Bank for International Settlements, the Basel Committee on Banking Supervision (or any successor or similar authority) or the United States or foreign regulatory authorities, in each case pursuant to Basel III, shall in each case be deemed to constitute a change in Requirements of Law for all purposes of this **Section 5.01**, regardless of the date enacted, adopted or issued.

5.02 Illegality. Notwithstanding any other provision of this Agreement, in the event that on or after the date hereof the adoption of or any change in any Requirement of Law or in the interpretation or application thereof by any competent Governmental Authority shall make it unlawful for a Lender or its lending office to make or maintain its Loans (and, in the opinion of such Lender, the designation of a different lending office would either not avoid such unlawfulness or would be disadvantageous to such Lender), then such Lender shall promptly notify Borrower thereof following which (a) the Lender's Commitment shall be suspended until such time as such Lender may again make and maintain the Loans hereunder and (b) if such Requirement of Law shall so mandate, the Loans of such Lender shall be prepaid by Borrower

on or before such date as shall be mandated by such Requirement of Law in an amount equal to the Redemption Price applicable on the date of such prepayment in accordance with **Section 3.03(a)**.

5.03 Taxes.

(a) **Payments Free of Taxes**. Any and all payments by or on account of any Obligation shall be made without deduction or withholding for any Taxes, except as required by applicable law. If any applicable law requires the deduction or withholding of any Tax from any such payment by an Obligor, then such Obligor shall be entitled to make such deduction or withholding and shall timely pay the full amount deducted or withheld to the relevant Governmental Authority in accordance with applicable law and, if such Tax is an Indemnified Tax, then the sum payable by such Obligor shall be increased as necessary so that after such deduction or withholding for Indemnified Taxes has been made (including such deductions and withholdings for Indemnified Taxes applicable to additional sums payable under this **Section 5**) the applicable Recipient receives an amount equal to the sum it would have received had no such deduction or withholding for Indemnified Taxes been made.

(b) **Payment of Other Taxes by Borrower**. The Obligors shall timely pay to the relevant Governmental Authority in accordance with applicable law, or at the option of each Lender, timely reimburse it for, Other Taxes.

(c) **Evidence of Payments**. As soon as practicable after any payment of Taxes by Borrower to a Governmental Authority pursuant to this **Section 5**, Borrower shall deliver to each Lender the original or a certified copy of a receipt issued by such Governmental Authority evidencing such payment, a copy of the return reporting such payment or other evidence of such payment reasonably satisfactory to such Lender.

(d) **Indemnification**. The Obligors shall reimburse and indemnify each Recipient, within 10 days after demand therefor, for the full amount of any Indemnified Taxes (including Indemnified Taxes imposed or asserted on or attributable to amounts payable under this **Section 5**) payable or paid by such Recipient or required to be withheld or deducted from a payment to such Recipient and any reasonable expenses arising therefrom or with respect thereto, whether or not such Indemnified Taxes were correctly or legally imposed or asserted by the relevant Governmental Authority. A certificate as to the amount of such payment or liability delivered to Borrower by a Lender shall be conclusive absent manifest error.

(e) **Status of Lenders**.

(i) Any Lender that is entitled to an exemption from, or reduction of withholding Tax with respect to payments made under any Loan Document shall timely deliver to Borrower such properly completed and executed documentation reasonably requested by Borrower as will permit such payments to be made without withholding or at a reduced rate of withholding. In addition, any Lender shall deliver such other documentation prescribed by applicable law as reasonably requested by Borrower as will enable Borrower to determine whether or not such Lender is subject to backup withholding or information reporting requirements. Notwithstanding anything to the contrary in the preceding two sentences, the

completion, execution and submission of such documentation (other than such documentation set forth in **Section 5.03(e)(ii)(A)**, **(B) or (D)**) shall not be required if in the Lender's reasonable judgment such completion, execution or submission would subject such Lender to any material unreimbursed cost or expense or would materially prejudice the legal or commercial position of such Lender.

(ii) Without limiting the generality of the foregoing, in the event that Borrower is a U.S. Person:

(A) any Lender that is a U.S. Person shall deliver to Borrower on or prior to the date on which such Lender becomes a Lender under this Agreement (and from time to time thereafter upon the reasonable request of Borrower), executed originals of IRS Form W-9 (or successor form) certifying that such Lender is exempt from U.S. Federal backup withholding tax;

(B) any Foreign Lender shall, to the extent it is legally entitled to do so, deliver to Borrower (in such number of copies as shall be requested by the recipient) on or prior to the date on which such Foreign Lender becomes a Lender under this Agreement (and from time to time thereafter upon the reasonable request of Borrower), whichever of the following is applicable:

(1) in the case of a Foreign Lender claiming the benefits of an income tax treaty to which the United States is a party (x) with respect to payments of interest under any Loan Document, executed originals of IRS Form W-8BEN or IRS Form W-8BEN-E (or successor form) establishing an exemption from, or reduction of, U.S. Federal withholding Tax pursuant to the "interest" article of such tax treaty and (y) with respect to any other applicable payments under any Loan Document, IRS Form W-8BEN or IRS Form W-8BEN-E (or successor form) establishing an exemption from, or reduction of, U.S. Federal withholding Tax pursuant to the "business profits" or "other income" article of such tax treaty;

(2) executed originals of IRS Form W-8ECI (or successor form);

(3) in the case of a Foreign Lender claiming the benefits of the exemption for portfolio interest under Section 881(c) of the Code, (x) a certificate substantially in the form of **Exhibit D-1** or **Exhibit D-2** to the effect that such Foreign Lender is not a "bank" within the meaning of Section 881(c)(3)(A) of the Code, a "10 percent shareholder" of the applicable Borrower within the meaning of Section 881(c)(3)(B) of the Code, or a "controlled foreign corporation" described in Section 881(c)(3)(C) of the Code (a "***U.S. Tax Compliance Certificate***") and (y) executed originals of IRS Form W-8BEN or IRS Form W-8BEN-E (or successor form); or

(4) to the extent a Foreign Lender is not the beneficial owner, executed originals of IRS Form W-8IMY (or successor form), accompanied by IRS Form W- 8ECI (or successor form), IRS Form W-8BEN or IRS Form W-8BEN-E (or successor form), a U.S. Tax Compliance Certificate, IRS Form W-9 (or successor form), and/or other certification documents from each beneficial owner, as applicable; provided that if the Foreign Lender is a

partnership and one or more direct or indirect partners of such Foreign Lender are claiming the portfolio interest exemption, such Foreign Lender may provide a U.S. Tax Compliance Certificate on behalf of each such direct and indirect partner.

(C) any Foreign Lender shall, to the extent it is legally entitled to do so, deliver to Borrower (in such number of copies as shall be requested by the recipient) on or prior to the date on which such Foreign Lender becomes a Lender under this Agreement (and from time to time thereafter upon the reasonable request of Borrower), executed originals of any other form prescribed by applicable law as a basis for claiming exemption from or a reduction in U.S. Federal withholding Tax, duly completed, together with such supplementary documentation as may be prescribed by applicable law to permit Borrower to determine the withholding or deduction required to be made; and

(D) any Foreign Lender shall deliver to Borrower any forms and information necessary to establish that such Foreign Lender is not subject to withholding tax under FATCA. For purposes of this clause (D), "FATCA" shall include any amendments made to FATCA after the date of this Agreement. Each Lender agrees that if any form or certification it previously delivered expires or becomes obsolete or inaccurate in any respect, it shall update such form or certification or promptly notify Borrower in writing of its legal inability to do so.

(f) **Treatment of Certain Refunds**. If any party determines, in its sole discretion exercised in good faith, that it has received a refund of any Taxes as to which it has been indemnified pursuant to this **Section 5** (including by the payment of additional amounts pursuant to this **Section 5**), it shall pay to the indemnifying party an amount equal to such refund (but only to the extent of indemnity payments made under this **Section 5** with respect to the Taxes giving rise to such refund), net of all out-of-pocket expenses (including Taxes) of such indemnified party and without interest (other than any interest paid by the relevant Governmental Authority with respect to such refund). Such indemnifying party, upon the request of such indemnified party, shall repay to such indemnified party the amount paid over pursuant to this paragraph (plus any penalties, interest or other charges imposed by the relevant Governmental Authority) in the event that such indemnified party is required to repay such refund to such Governmental Authority. Notwithstanding anything to the contrary in this **Section 5.03(f)**, in no event will the indemnified party be required to pay any amount to an indemnifying party pursuant to this **Section 5.03(f)** the payment of which would place the indemnified party in a less favorable net after-Tax position than the indemnified party would have been in if the indemnification payments or additional amounts giving rise to such refund had never been paid. This **Section 5.03(f)** shall not be construed to require any indemnified party to make available its Tax returns (or any other information relating to its Taxes that it deems confidential) to the indemnifying party or any other Person.

(g) **Mitigation Obligations**. If Borrower is required to pay any Indemnified Taxes or additional amounts to any Lender or to any Governmental Authority for the account of any Lender pursuant to **Section 5.01** or this **Section 5.03**, then such Lender shall (at the request of Borrower) use commercially reasonable efforts to designate a different lending office for funding or booking its Loans hereunder or to assign and delegate its rights and obligations hereunder to

another of its offices, branches or Affiliates if, in the sole reasonable judgment of such Lender, such designation or assignment and delegation would (i) eliminate or reduce amounts payable pursuant to **Section 5.01** or this **Section 5.03**, as the case may be, in the future, (ii) not subject such Lender to any unreimbursed cost or expense and (iii) not otherwise be disadvantageous to such Lender. Borrower hereby agrees to pay all reasonable and documented costs and expenses incurred by any Lender in connection with any such designation or assignment and delegation.

SECTION 6
CONDITIONS PRECEDENT

6.01 Conditions to the First Borrowing. The obligation of each Lender to make a Loan as part of the first Borrowing shall not become effective until the following conditions precedent shall have been satisfied or waived in writing by the Majority Lenders:

(a) **Borrowing Date**. Such Borrowing shall be made on October 13, 2015.

(b) **Amount of First Borrowing**. The amount of such Borrowing shall be equal to $20,000,000.

(c) **Terms of Material Agreements, Etc**. Lenders shall be reasonably satisfied with the terms and conditions of all of the Obligors' Material Agreements.

(d) **No Law Restraining Transactions**. No applicable law or regulation shall restrain, prevent or, in the reasonable judgment of the Lenders, impose materially adverse conditions upon the Transactions.

(e) **Payment of Fees**. Lenders shall be satisfied with the arrangements to deduct the fees set forth in the Fee Letter (including without limitation the upfront financing fee required pursuant to the Fee Letter) from the proceeds of such Borrowing.

(f) **Lien Searches**. Lenders shall be satisfied with Lien searches regarding Borrower and its Subsidiaries made within two Business Days prior to such Borrowing.

(g) **Documentary Deliveries**. The Lenders shall have received the following documents, each of which shall be in form and substance satisfactory to the Lenders:

(i) **Agreement**. This Agreement duly executed and delivered by Borrower and each of the other parties hereto.

(ii) **Security Documents**.

(A) The Security Agreement, duly executed and delivered Borrower.

(B) (1) Each of the Short-Form IP Security Agreements, duly executed and delivered by Borrower, and (2) such Intellectual Property security agreements, duly executed and delivered by Borrower, as the Lenders may require with respect to foreign Intellectual Property.

(C) Original share certificates or other documents or evidence of title with regard to all Equity Interests owned by Borrower (to the extent that such Equity Interests are certificated), together with share transfer documents, undated and executed in blank.

(D) Duly executed control agreements in favor of the Lenders for all Deposit Accounts, Securities Accounts and Commodity Accounts owned by Borrower in the United States.

(E) Evidence of filing of UCC-1 financing statements against Borrower in its jurisdiction of incorporation.

(F) Without limitation, all other documents and instruments reasonably required to perfect the Lenders' Lien on, and security interest in, the Collateral required to be delivered on or prior to such Borrowing Date shall have been duly executed and delivered and be in proper form for filing, and shall create in favor of the Lenders, a perfected Lien on, and security interest in, the Collateral, subject to no Liens other than Permitted Liens.

(iii) **Notes**. Any Notes requested in accordance with **Section 2.04**.

(iv) **Perfection Certificate**. The Perfection Certificate, duly executed and delivered by Borrower.

(v) **Approvals**. Certified copies of all material licenses, consents, authorizations and approvals of, and notices to and filings and registrations with, any Governmental Authority (including all foreign exchange approvals), and of all third-party consents and approvals, necessary in connection with the making and performance by Borrower of the Loan Documents and the Transactions.

(vi) **Corporate Documents**. Certified copies of the constitutive documents of Borrower (if publicly available in Borrower's jurisdiction of formation) and of resolutions of the board of directors (or shareholders, if applicable) of Borrower authorizing the execution, delivery and performance by it of the Loan Documents to which it is a party.

(vii) **Incumbency Certificate**. A certificate of Borrower as to the authority, incumbency and specimen signatures of the persons who have executed the Loan Documents and any other documents in connection herewith on behalf of Borrower.

(viii) **Officer's Certificate**. A certificate, dated such Borrowing Date and signed by the President, a Vice President or a financial officer of Borrower, confirming compliance with the conditions set forth in **Section 6.03**.

(ix) **Opinions of Counsel**. A favorable opinion, dated such Borrowing Date, of counsel to Borrower in form acceptable to the Lenders and their counsel, responsive to the requests set forth in **Exhibit F**.

(x) **Insurance**. Certificates of insurance evidencing the existence of all insurance required to be maintained by Borrower pursuant to **Section 8.05** and the designation of

the Lenders as the lender's loss payees or additional named insured, as the case may be, thereunder.

(xi) **Other Liens**. Duly executed and delivered copies of such acknowledgement letters as are reasonably requested by the Lenders with respect to existing Liens.

(xii) **NeuroCo Note Documentation.** Duly executed and delivered copies of such documentation with respect to the NeuroCo, Inc. promissory note as are reasonably requested by the Lenders.

(xiii) **Management Rights Letter**. The Management Rights Letter, duly executed and delivered by Borrower.

(h) **Required Equity Financing**. Borrower shall have issued Series C Preferred Stock in such quantity as shall have resulted in net cash proceeds (including as cash proceeds for purposes of this clause (h) the conversion of outstanding convertible notes into Series C Preferred Stock) to Borrower of at least $15,000,000 with existing investors, Warburg Pincus LLC and the Vertical Group Inc. (the "***Required Equity Financing***"). The Series C Preferred Stock shall not be redeemable prior to a date that is at least 181 days after the Loans cease to be outstanding.

(i) **Equity Purchase Option**. On the date of the initial Borrowing, the Lenders may, at their sole option, purchase $2,000,000 of the Company's Series C Preferred Stock at the price paid by, and on the same terms and conditions as, the investors in the Required Equity Financing.

6.02 Conditions to Subsequent Borrowing. The obligation of each Lender to make a Loan as part of a subsequent Borrowing is subject to the following conditions precedent:

(a) **Borrowing Date**. Such Borrowing shall occur on or prior to the end of the Commitment Period.

(b) **Amount of Borrowing**. Upon the achievement of the Second Draw Milestone, the amount of such Borrowing shall equal $5,000,000; provided that if the Company shall have consummated a Qualified Financing resulting in net cash proceeds to Borrower of at least$10,000,000, the amount of such Borrowing may equal, at Borrower's option, either $5,000,000 or $10,000,000.

(c) **Borrowing Milestone**. On or prior to December 31, 2016, Borrower shall have consummated a Qualified Financing resulting in net cash proceeds to Borrower of at least $5,000,000 (the "***Second Draw Milestone***").

(d) **Notice of Milestone Achievement**. Borrower shall have delivered to the Lenders a notice certifying satisfaction of the condition set forth in **Section 6.02(c)** no later than 30 days thereafter and any documentation reasonably requested by Lenders in connection therewith.

(e) **Notice of Borrowing.** A Notice of Borrowing shall have been received no later than 60 calendar days after satisfaction of the condition set forth in **Section 6.02(c)**.

6.03 Conditions to Each Borrowing. The obligation of each Lender to make a Loan as part of any Borrowing (including the first Borrowing) is also subject to satisfaction of the following further conditions precedent on the applicable Borrowing Date:

(a) **Commitment Period**. Except in the case of any PIK Loan, such Borrowing Date shall occur during the Commitment Period.

(b) **No Default; Representations and Warranties**. Both immediately prior to the making of such Loan and after giving effect thereto and to the intended use thereof:

(i) no Default shall have occurred and be continuing or would result from such proposed Loan or the application of the proceeds thereof;

(ii) the representations and warranties made by Borrower in **Section 7** shall be (A) in the case of representations qualified by "materiality," "Material Adverse Effect" or similar language, true and correct in all respects and (B) in the case of all other representations and warranties, true and correct in all material respects on and as of the Borrowing Date, and immediately after giving effect to the application of the proceeds of the Borrowing, with the same force and effect as if made on and as of such date (except that the representation regarding representations and warranties that refer to a specific earlier date shall be that they were true and correct on the basis set forth above as of such earlier date); and

(iii) no Material Adverse Effect has occurred or is reasonably likely to occur after giving effect to such proposed Borrowing.

(c) **Notice of Borrowing**. Except in the case of any PIK Loan, Capital Royalty Partners II L.P. shall have received a Notice of Borrowing as and when required pursuant to **Section 2.02**.

Each Borrowing shall constitute a certification by Borrower to the effect that the conditions set forth in this **Section 6.03** have been fulfilled as of the applicable Borrowing Date.

SECTION 7
REPRESENTATIONS AND WARRANTIES

Borrower represents and warrants to the Lenders that:

7.01 Power and Authority. Each of Borrower and its Subsidiaries (a) is duly organized and validly existing under the laws of its jurisdiction of organization, (b) has all requisite corporate or other equivalent power, and has all material governmental licenses, authorizations, consents and approvals necessary to own its assets and carry on its business as now being or as proposed to be conducted except to the extent that failure to have the same could not reasonably be expected to have a Material Adverse Effect, (c) is qualified to do business and is in good standing (to the extent applicable) in all jurisdictions in which the nature of the business conducted by it makes such qualification necessary and where failure so to qualify could reasonably be expected (either

individually or in the aggregate) have a Material Adverse Effect, and (d) has full power, authority and legal right to make and perform each of the Loan Documents to which it is a party and, in the case of Borrower, to borrow the Loans hereunder.

7.02 Authorization; Enforceability. The Transactions are within each Obligor's corporate or equivalent powers and have been duly authorized by all necessary corporate or equivalent action and, if required, by all necessary shareholder action. This Agreement has been duly executed and delivered by each Obligor and constitutes, and each of the other Loan Documents to which it is a party when executed and delivered by such Obligor will constitute, a legal, valid and binding obligation of such Obligor, enforceable against each Obligor in accordance with its terms, except as such enforceability may be limited by (a) bankruptcy, insolvency, reorganization, moratorium or similar laws of general applicability affecting the enforcement of creditors' rights and (b) the application of general principles of equity (regardless of whether such enforceability is considered in a proceeding in equity or at law).

7.03 Governmental and Other Approvals; No Conflicts. The Transactions (a) do not require any consent or approval of, registration or filing with, or any other action by, any Governmental Authority or any third party on the part of any Obligor, except for (i) such as have been obtained or made and are in full force and effect and (ii) filings and recordings in respect of the Liens created pursuant to the Security Documents, (b) will not violate the charter, bylaws or other organizational documents of Borrower and its Subsidiaries, (c) will not violate any applicable law or regulation binding upon Borrower and its Subsidiaries or any order of any Governmental Authority, other than any such violations that, individually or in the aggregate, could not reasonably be expected to have a Material Adverse Effect, (d) will not violate or result in a default under any indenture, agreement or other instrument relating to Indebtedness or other material agreement or instrument, in each case binding upon Borrower and its Subsidiaries or assets, or give rise to a right thereunder to require any payment to be made by any such Person, and (e) will not result in the creation or imposition of any Lien (other than Permitted Liens) on any asset of Borrower and its Subsidiaries.

7.04 Financial Statements; Material Adverse Change.

(a) **Financial Statements**. After the date hereof, Borrower has furnished to the Lenders certain financial statements as provided for in **Section 8.01**. Prior to the date hereof, Borrower has furnished to Lenders its consolidated financial statements for its fiscal year ended December 31, 2014 and its consolidated financial statements for the six months ended June 30, 2015. Such financial statements present fairly, in all material respects, the financial position and results of operations and cash flows of Borrower and its Subsidiaries as of such dates and for such periods in accordance with GAAP, subject to year-end audit adjustments and the absence of footnotes in the case of financial statements of the type described in **Section 8.01(b)**. Neither Borrower nor any of its Subsidiaries has any material contingent liabilities or unusual forward or long-term commitments not disclosed in the aforementioned financial statements, other than trade payables arising in the ordinary course of business.

(b) **No Material Adverse Change**. Since December 31, 2014, there has been no Material Adverse Change.

7.05 Properties.

(a) **Property Generally**. Each Obligor has good title to, or valid leasehold interests in, all its real and personal Property material to its business, subject only to Permitted Liens and except for minor defects in title that do not interfere with its ability to conduct its business as currently conducted or to utilize such properties for their intended purposes.

(b) **Intellectual Property**. The Obligors represent and warrant to the Lenders as of the date hereof as follows, and the Obligors acknowledge that the Lenders are relying on such representations and warranties in entering into this Agreement:

(i) **Schedule 7.05(b)(i)** (as amended from time to time by Borrower in accordance with **Section 7.21**) contains:

(A) a complete and accurate list of all applied for or registered Patents owned by any Obligor, including the jurisdiction and patent number;

(B) a complete and accurate list of all applied for or registered Trademarks owned by any Obligor, including the jurisdiction, trademark application or registration number and the application or registration date; and

(C) a complete and accurate list of all applied for or registered Copyrights owned by any Obligor;

(ii) Each Obligor is the sole owner of all right, title and interest in and to and has the right to use the Obligor Intellectual Property with good title, free and clear of any Liens whatsoever other than Permitted Liens. Without limiting the foregoing, and except as set forth in **Schedule 7.05(b)(ii)** (as updated from time to time by Borrower in accordance with **Section 7.21**):

(A) other than with respect to the Material Agreements, or as permitted by **Section 9.02**, **Section 9.03** or **Section 9.09**, the Obligors have not sold any Material Intellectual Property to any other Person who is not an Obligor;

(B) other than (i) the Material Agreements, (ii) customary restrictions in in-bound licenses of Intellectual Property and non-disclosure agreements, or (iii) as would have been or is permitted by **Section 9.02** or **Section 9.09**, there are no judgments, covenants not to sue, licenses, Liens (other than Permitted Liens), Claims, or other written agreements relating to Borrower's Material Intellectual Property, including any development, submission, services, research, license or support agreements, which bind, obligate or otherwise restrict the Obligors;

(C) the use of any of the Obligor Intellectual Property, to Borrower's Knowledge, does not breach, violate, infringe or interfere in any material respect with or constitute a misappropriation in any material respect of any valid rights arising under any Intellectual Property of any other Person;

(D) there are no pending or, to Borrower's Knowledge, threatened in writing Claims against the Obligors asserted by any other Person relating to the Obligor

Intellectual Property, including any Claims of adverse ownership, invalidity, infringement, misappropriation, violation or other opposition to or conflict with such Intellectual Property; the Obligors have not received any written notice from any Person that Borrower's business, the use of the Obligor Intellectual Property, or the manufacture, use or sale of any product or the performance of any service by Borrower infringes upon, violates or constitutes a misappropriation of, or may infringe upon, violate or constitute a misappropriation of, any other Intellectual Property of any other Person;

(E) to Borrower's knowledge, no Obligor Intellectual Property is being infringed or violated or misappropriated by any other Person. Without limiting the foregoing, the Obligors have not put any other Person on notice of actual or potential infringement, violation or misappropriation of any of the Obligor Intellectual Property; the Obligors have not initiated the enforcement of any Claim with respect to any of the material Obligor Intellectual Property;

(F) all relevant current and former employees and contractors of Borrower, who as part of their day-to-day activities created or developed Material Intellectual Property for Borrower, have executed written confidentiality and invention assignment Contracts with Borrower that irrevocably assign to Borrower or its designee all of their rights to any Inventions relating to Borrower's business that are conceived or reduced to practice by such employees within the scope of their employment or by such contractors within the scope of their contractual relationship with Borrower, to the extent permitted by applicable law;

(G) to the Knowledge of the Obligors, the Obligor Intellectual Property is all the Intellectual Property necessary for the operation of Borrower's business as it is currently conducted or as currently contemplated to be conducted;

(H) the Obligors have taken reasonable precautions to protect the secrecy, confidentiality and value of its material Obligor Intellectual Property consisting of trade secrets and confidential information.

(I) each Obligor has delivered (or posted on a data site accessible to the Lenders) to the Lenders accurate and complete copies of all Material Agreements relating to the Obligor Intellectual Property; and

(J) there are no pending or, to the Knowledge of any of the Obligors, threatened in writing Claims against the Obligors asserted by any other Person relating to the Material Agreements, including any Claims of breach or default under such Material Agreements;

(iii) With respect to the Obligor Intellectual Property owned by any Obligor consisting of Patents, except as set forth in **Schedule 7.05(b)(ii)** (as amended from time to time by Borrower in accordance with **Section 7.21**), and without limiting the representations and warranties in **Section 7.05(b)(ii)**:

(A) each of the issued claims in such Patents, to Borrower's Knowledge, is valid and enforceable;

(B) the inventors of such Patents have executed written Contracts with the applicable Obligor or its predecessor-in-interest that properly and irrevocably assigns to such Obligor or predecessor-in-interest all of their rights to any of the Inventions claimed in such Patents to the extent permitted by applicable law;

(C) none of the Patents owned by any Obligor, or the Inventions claimed therein, have been dedicated to the public except as a result of intentional decisions made by the applicable Obligor;

(D) to Borrower's Knowledge, all prior art material to such Patents was disclosed to the respective patent offices during prosecution of such Patents to the extent required by applicable law or regulation;

(E) subsequent to the issuance of such Patents, neither any Obligor nor their respective predecessors in interest, have filed any disclaimer or filed any other voluntary reduction in the scope of the Inventions claimed in such Patents;

(F) no allowable or allowed claims of such Patents, to Borrower's Knowledge, are subject to any interference, re-examination or opposition proceedings, nor are the Obligors aware of any basis for any such interference, re-examination or opposition proceedings;

(G) no such Patents, to Borrower's Knowledge, have ever been finally adjudicated to be invalid, unpatentable or unenforceable for any reason in any administrative, arbitration, judicial or other proceeding, and, with the exception of publicly available documents in the applicable Patent Office recorded with respect to any Patents, the Obligors have not received any notice asserting that such Patents are invalid, unpatentable or unenforceable; if any of such Patents is terminally disclaimed to another patent or patent application, all patents and patent applications subject to such terminal disclaimer are included in the Collateral;

(H) the Obligors have not received a written opinion of counsel, whether preliminary in nature or qualified in any manner, which concludes that a challenge to the validity or enforceability of any of such Patents is more likely than not to succeed;

(I) to Borrower's knowledge, no Obligor nor any prior owner of such Patents or their respective agents or representatives have engaged in any conduct, or omitted to perform any necessary act, the result of which would invalidate or render unpatentable or unenforceable any such Patents; and

(J) all maintenance fees, annuities, and the like due or payable on the Patents have been timely paid or the failure to so pay was the result of an intentional decision by the applicable Obligor or would not reasonably be expected to result in a Material Adverse Change.

(iv) none of the foregoing representations and statements of fact contains any untrue statement of material fact or omits to state any material fact necessary to make any such statement or representation not misleading to a prospective Lender seeking full information as to the Obligor Intellectual Property and Borrower's business.

(c) **Material Intellectual Property**. **Schedule 7.05(c)** (as amended from time to time by Borrower in accordance with **Section 7.21**) contains an accurate list of the Obligor Intellectual Property that is material to Borrower's business with an indication as to whether the applicable Obligor owns or has an exclusive or non-exclusive license to such Obligor Intellectual Property.

7.06 No Actions or Proceedings.

(a) **Litigation**. There is no litigation, investigation or proceeding pending or, to Borrower's Knowledge, threatened with respect to Borrower and its Subsidiaries by or before any Governmental Authority or arbitrator (i) that either individually or in the aggregate could reasonably be expected to have a Material Adverse Effect, except as specified in **Schedule 7.06** or (ii) that involves this Agreement or the Transactions.

(b) **Environmental Matters**. The operations and Property of Borrower and its Subsidiaries comply with all applicable Environmental Laws, except to the extent the failure to so comply (either individually or in the aggregate) could not reasonably be expected to have a Material Adverse Effect.

(c) **Labor Matters**. Borrower has not engaged in unfair labor practices that could reasonably be expected to have a Material Adverse Effect and there are no material labor actions or disputes involving the employees of Borrower that could reasonably be expected to have a Material Adverse Effect.

7.07 Compliance with Laws and Agreements. Each of the Obligors is in compliance with all laws, regulations and orders of any Governmental Authority applicable to it or its property and all indentures, agreements and other instruments binding upon it or its property, except where the failure to do so, individually or in the aggregate, could not reasonably be expected to result in a Material Adverse Effect. No Default has occurred and is continuing.

7.08 Taxes. Except as set forth on **Schedule 7.08**, each of the Obligors has timely filed or caused to be filed all U.S. federal income tax returns and all other material tax returns and reports required to have been filed by it and has paid or caused to be paid all United States federal income taxes and all other material taxes required to have been paid by it, except taxes that are being contested in good faith by appropriate proceedings and for which such Obligor has set aside on its books adequate reserves with respect thereto in accordance with GAAP.

7.09 Full Disclosure. Borrower has disclosed to the Lenders all Material Agreements to which any Obligor is a party, and all other matters to its Knowledge, that, individually or in the aggregate, could reasonably be expected to result in a Material Adverse Effect. None of the reports, financial statements, certificates or other information furnished by or on behalf of the Obligors to the Lenders in connection with the negotiation of this Agreement and the other Loan Documents or delivered hereunder or thereunder (as modified or supplemented by other information so furnished), taken as a whole, contains any material misstatement of material fact or omits to state any material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; *provided that*, with respect to projected financial information, Borrower represents only that such information was prepared in

good faith based upon assumptions believed to be reasonable at the time (it being understood that such projected financial information is not to be viewed as facts, and that no assurances can be given that any particular projections will be realized and that actual results during the period or periods covered by any such projections may differ from the projected results and such differences may be material).

7.10 Regulation.

(a) **Investment Company Act**. Neither Borrower nor any of its Subsidiaries is an "investment company" as defined in, or subject to regulation under, the Investment Company Act of 1940.

(b) **Margin Stock**. Neither Borrower nor any of its Subsidiaries is engaged principally, or as one of its important activities, in the business of extending credit for the purpose, whether immediate, incidental or ultimate, of buying or carrying Margin Stock, and no part of the proceeds of the Loans will be used to buy or carry any Margin Stock in violation of Regulation T, U or X.

7.11 Solvency. Borrower is and, immediately after giving effect to the Borrowing and the use of proceeds thereof will be, Solvent.

7.12 Subsidiaries. Set forth on **Schedule 7.12** is a complete and correct list of all Subsidiaries as of the date hereof. As of the date hereof, each such Subsidiary is duly organized and validly existing under the jurisdiction of its organization shown in said **Schedule 7.12**, and the percentage ownership by Borrower of each such Subsidiary is as shown in said **Schedule 7.12**.

7.13 Indebtedness and Liens. Set forth on **Schedule 7.13(a)** is a complete and correct list of all Indebtedness of each Obligor outstanding as of the date hereof. **Schedule 7.13(b)** is a complete and correct list of all Liens granted by Borrower and other Obligors with respect to their respective Property and outstanding as of the date hereof.

7.14 Material Agreements. Set forth on **Schedule 7.14** (as amended from time to time by Borrower in accordance with **Section 7.21**) is a complete and correct list of (i) each Material Agreement and (ii) each agreement (other than the Loan Documents) creating or evidencing any Material Indebtedness. No Obligor is in material default under any such Material Agreement or agreement creating or evidencing any Material Indebtedness. Except as otherwise disclosed on **Schedule 7.14**, all material vendor purchase agreements and provider contracts of the Obligors are in full force and effect without material modification from the form in which the same were disclosed to the Lenders.

7.15 Restrictive Agreements. None of the Obligors is a party to any indenture, agreement, instrument or other binding arrangement that prohibits, restricts or imposes any condition upon (a) the ability of Borrower or any Subsidiary to create, incur or permit to exist any Lien upon any of its property or assets (other than (x) customary provisions in contracts (including without limitations in leases and in-bound licenses of Intellectual Property) restricting the assignment thereof or the subletting or sublicense of the rights thereunder and (y) restrictions or conditions imposed by any agreement governing secured Permitted Indebtedness permitted under **Section 9.01(h)**, **Section 9.01(l)** or **Section 9.01(n)**, to the extent that such restrictions or conditions

apply only to the property or assets securing such Indebtedness), or (b) the ability of any Subsidiary to pay dividends or other distributions with respect to any shares of its capital stock or to make or repay loans or advances to Borrower or any other Subsidiary or to Guarantee Indebtedness of Borrower or any other Subsidiary (each, a "***Restrictive Agreement***"), except those listed on **Schedule 7.15** or otherwise permitted under **Section 9.11**.

7.16 Real Property.

(a) **Generally**. Neither Borrower nor any of its Subsidiaries owns or leases (as tenant thereof) any real property, except as described on **Schedule 7.16** (as amended from time to time by Borrower in accordance with **Section 7.21**).

(b) **Borrower Lease**. (i) Borrower has delivered a true, accurate and complete copy of the Borrower Lease to Lenders.

(ii) The Borrower Lease is in full force and effect and no material default has occurred under the Borrower Lease and, to the Knowledge of Borrower, there is no existing condition which, but for the passage of time or the giving of notice, could reasonably be expected to result in a material default under the terms of the Borrower Lease.

(iii) Borrower is the tenant under the Borrower Lease and has not transferred, sold, assigned, conveyed, disposed of, mortgaged, pledged, hypothecated, or encumbered any of its interest in, the Borrower Lease, except as permitted by this Agreement.

7.17 Benefit Plan Matters. **Schedule 7.17** sets forth, as of the date hereof, a complete and correct list of, and that separately identifies, (a) all Title IV Plans and (b) all Multiemployer Plans. Except as could not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect, (x) each Benefit Plan is in compliance with applicable provisions of ERISA, the Code and other Requirements of Law, (y) there are no existing or pending (or to the Knowledge of any Obligor or Subsidiary thereof, threatened) claims (other than routine claims for benefits in the normal course), sanctions, actions, lawsuits or other proceedings or investigation involving any Benefit Plan to which any Obligor or Subsidiary thereof incurs or otherwise has or could have an obligation or any liability or Claim, and (z) no ERISA Event is reasonably expected to occur. Borrower and each of its ERISA Affiliates has met all applicable requirements under the ERISA Funding Rules with respect to each Title IV Plan, and no waiver of the minimum funding standards under the ERISA Funding Rules has been applied for or obtained. As of the most recent valuation date for any Title IV Plan, the funding target attainment percentage (as defined in Section 430(d)(2) of the Code) is at least 60%, and neither Borrower nor any of its ERISA Affiliates knows of any facts or circumstances that could reasonably be expected to cause the funding target attainment percentage to fall below 60% as of the most recent valuation date. As of the date hereof, no ERISA Event with respect to a Title IV Plan or a Multiemployer Plan has occurred in connection with which obligations and liabilities (contingent or otherwise) remain outstanding. No ERISA Affiliate would have any Withdrawal Liability as a result of a complete withdrawal from any Multiemployer Plan on the date this representation is made.

7.18 Collateral; Security Interest. Each Security Document is effective to create in favor of the Lenders, or the Control Agent for the benefit of the Lenders, as the case may be, a legal, valid and enforceable security interest in the Collateral subject thereto and each such security interest is perfected to the extent required by (and has the priority required by) the applicable Security Document. The Security Documents collectively are effective to create in favor of the Lenders, or the Control Agent for the benefit of the Lenders, as the case may be, a legal, valid and enforceable security interest in the Collateral, which security interests are first-priority (subject only to Permitted Priority Liens) to the extent required by the applicable Security Document.

7.19 Regulatory Approvals. Borrower and its Subsidiaries hold, and will continue to hold, either directly or through licensees and agents, all material Regulatory Approvals, licenses, permits and similar governmental authorizations of a Governmental Authority necessary or required for Borrower and its Subsidiaries to conduct their operations and business in the manner currently conducted.

7.20 Reserved.

7.21 Update of Schedules. Each of **Schedules 7.05(b)(i)** (in respect of the lists of Patents, Trademarks, and Copyrights under **Section 7.05(b)(i)**), **7.05(b)(i)**, **7.05(c)**, **7.06**, **7.14** and **7.16** may be updated by Borrower from time to time in order to insure the continued accuracy of such Schedule as of any upcoming date on which representations and warranties are made incorporating the information contained on such Schedule. Such update may be accomplished by Borrower providing to the Lenders, in writing (including by electronic means), a revised version of such Schedule in accordance with the provisions of **Section 12.02**. Each such updated Schedule shall be effective immediately upon the receipt thereof by the Lenders.

SECTION 8
AFFIRMATIVE COVENANTS

Each Obligor covenants and agrees with the Lenders that, until the Commitments have expired or been terminated and all Obligations (other than contingent obligations for which no claim has been made to Borrower) have been paid in full in cash:

8.01 Financial Statements and Other Information. Borrower will furnish to the Lenders:

(a) as soon as available and in any event within 45 days after the end of the first three fiscal quarters of each fiscal year of Borrower (or 60 days, in the case of the fourth fiscal quarter (until Borrower is a Publicly Reporting Company) and commencing with the fiscal quarter ended September 30, 2015), the consolidated and (if prepared by Borrower) consolidating balance sheets of Borrower and its Subsidiaries as of the end of such quarter, and the related consolidated and (if prepared by Borrower) consolidating statements of income, and cash flows of Borrower and its Subsidiaries for such quarter and the portion of the fiscal year through the end of such quarter, prepared in accordance with GAAP consistently applied, all in reasonable detail and setting forth (in the case of consolidated financial statements) in comparative form the figures for the corresponding period in the preceding fiscal year, together with a certificate of a Responsible Officer of Borrower stating that such consolidated financial statements fairly present in all

material respects the consolidated financial condition of Borrower and its Subsidiaries as at such date and the consolidated results of operations of Borrower and its Subsidiaries for the period ended on such date and have been prepared in accordance with GAAP consistently applied, subject to changes resulting from normal, year-end audit adjustments and except for the absence of notes;

(b) as soon as available and in any event within 180 days after the end of each fiscal year of Borrower (commencing with the fiscal year ending December 31, 2015), the consolidated and (if prepared by Borrower) consolidating balance sheets of Borrower and its Subsidiaries as of the end of such fiscal year, and the related consolidated and (if prepared by Borrower) consolidating statements of income, shareholders' equity and cash flows of Borrower and its Subsidiaries for such fiscal year, prepared in accordance with GAAP consistently applied, all in reasonable detail and setting forth (in the case of consolidated financial statements) in comparative form the figures for the previous fiscal year, accompanied by a report and opinion on such consolidated financial statements of PricewaterhouseCoopers LLP or another firm of independent certified public accountants of recognized national standing reasonably acceptable to the Lenders, which report and opinion shall be prepared in accordance with generally accepted auditing standards and shall not be subject to any qualification or exception as to the scope of such audit, and in the case of any prepared consolidating financial statements, certified by a Responsible Officer of Borrower;

(c) together with the financial statements required pursuant to **Sections 8.01(a)** and **(b)**, a compliance certificate of a Responsible Officer of Borrower as of the end of the applicable accounting period (which delivery may, unless a Lender requests executed originals, be by electronic communication including fax or email and shall be deemed to be an original authentic counterpart thereof for all purposes) in the form of **Exhibit E** (a "***Compliance Certificate***") including any details of material issues that are raised by auditors;

(d) as soon as available, and in any event with 90 days of the beginning of Borrower's fiscal year, a budget approved by the Borrower's board of directors for such fiscal year;

(e) promptly, and in any event within five Business Days after receipt thereof by a Responsible Officer of Borrower, copies of each notice or other correspondence received from any securities regulator or exchange to the authority of which Borrower may become subject from time to time concerning any investigation or possible investigation or other inquiry by such agency regarding financial or other operational results of Borrower;

(f) the information regarding insurance maintained by Borrower and its Subsidiaries as required under **Section 8.05**;

(g) promptly following Lenders' request at any time, evidence of Borrower's compliance with **Section 10.01**;

(h) within five (5) days of delivery, copies of all statements, reports and notices made available to holders of Borrower's Equity Interests or holders of Permitted Cure Debt in their

capacities as such, *provided that* any such material may be redacted by Borrower to exclude information relating to the Lenders (including Borrower's strategy regarding the Loans); and

(i) the information required by the Management Rights Letter.

Documents or information required to be delivered pursuant to clauses (a), (b) and (h) of this **Section 8.01** may be delivered electronically and if Borrower is a Publicly Reporting Company, shall be deemed to have been delivered on the date on which such documents are filed for public availability on the SEC's Electronic Data Gathering and Retrieval System.

8.02 Notices of Material Events. Borrower will furnish to the Lenders written notice of the following promptly after a Responsible Officer of Borrower obtains Knowledge of:

(a) the occurrence of any Default;

(b) notice of the occurrence of any event with respect to its property or assets resulting in a Loss aggregating $300,000 (or the Equivalent Amount in other currencies) or more;

(c) (A) any proposed acquisition of stock, assets or property by any Obligor that would reasonably be expected to result in environmental liability under Environmental Laws which could reasonably be expected to have a Material Adverse Effect, and (B)(1) spillage, leakage, discharge, disposal, leaching, migration or release of any Hazardous Material required to be reported by Borrower or any of its Subsidiaries to any Governmental Authority under applicable Environmental Laws which would have a Material Adverse Effect, and (2) all actions, suits, claims, notices of violation, hearings, investigations or proceedings pending, or to Borrower's Knowledge, threatened in writing against Borrower or any of its Subsidiaries or with respect to the ownership, use, maintenance and operation of their respective businesses, operations or properties, relating to Environmental Laws or Hazardous Material, in each case which could reasonably be expected to have a Material Adverse Effect;

(d) the assertion in writing of any environmental Claim by any Person against, or with respect to the activities of, Borrower or any of its Subsidiaries and any alleged violation of or non-compliance with any Environmental Laws or any permits, licenses or authorizations which could reasonably be expected to involve damages in excess of $300,000 other than any environmental proceeding or alleged violation that could not (either individually or in the aggregate) reasonably be expected to have a Material Adverse Effect;

(e) the filing or commencement of any action, suit or proceeding by or before any arbitrator or Governmental Authority against Borrower or any of its Subsidiaries that could reasonably be expected to result in a Material Adverse Effect;

(f) (i) on or prior to any filing by any ERISA Affiliate of any notice of intent to terminate any Title IV Plan, a copy of such notice and (ii) promptly, and in any event within ten days, after any Responsible Officer of any ERISA Affiliate knows that a request for a minimum funding waiver under Section 412 of the Code has been filed with respect to any Title IV Plan or Multiemployer Plan, a notice (which may be made by telephone if promptly confirmed in writing) describing such waiver request and any action that any ERISA Affiliate proposes to take

with respect thereto, together with a copy of any notice filed with the PBGC or the IRS pertaining thereto;

(g) (i) the termination of any Material Agreement other than upon its scheduled termination date; (ii) the receipt by Borrower or any of its Subsidiaries of any material notice under any Material Agreement; (iii) the entering into of any new Material Agreement by an Obligor; or (iv) any material amendment to a Material Agreement;

(h) the reports and notices as required by the Security Documents;

(i) any notices of enforcement action or potential enforcement action, violations of law or potential violations of law, permit withdrawals or any other material notices received from the U.S. Food and Drug Administration or any other Governmental Authority relating to the Product;

(j) within 30 days of the date thereof, or, if earlier, on the date of delivery of any financial statements pursuant to **Section 8.01**, notice of any material change in accounting policies or financial reporting practices by the Obligors (which notice shall be deemed given with respect to any such changes described in the notes to such financial statements);

(k) promptly after the occurrence thereof, notice of any labor controversy resulting in or reasonably expected to result in any strike, work stoppage, boycott, shutdown or other material labor disruption against or involving an Obligor, in each case which could reasonably be expected to have a Material Adverse Effect;

(l) any material licensing agreement or arrangement entered into by Borrower or any Subsidiary in connection with any infringement of the Intellectual Property of another Person;

(m) any other development that results in, or could reasonably be expected to result in, a Material Adverse Effect;

(n) concurrently with the delivery of financial statements under **Section 8.01(b)**, the creation or other acquisition of any Intellectual Property by Borrower or any Subsidiary after the date hereof and during such prior fiscal year which is registered or becomes registered by Borrower or any Subsidiary or the subject of an application for registration filed by Borrower or any Subsidiary with the U.S. Copyright Office or the U.S. Patent and Trademark Office, as applicable, or with any other equivalent foreign Governmental Authority;

(o) any change to any Obligor's ownership of Deposit Accounts, Securities Accounts and Commodity Accounts, by delivering to Lenders an updated Annex 7 to the Security Agreement setting forth a complete and correct list of all such accounts as of the date of such change; or

(p) such other information respecting the operations, properties, business or condition (financial or otherwise) of the Obligors (including with respect to the Collateral) as the Majority Lenders may from time to time reasonably request.

Each notice delivered under this **Section 8.02** shall be accompanied by a statement of a Responsible Officer of Borrower setting forth the details of the event or development requiring such notice and, if applicable, any action taken or proposed to be taken with respect thereto.

8.03 Existence; Conduct of Business. Such Obligor will, and will cause each of its Subsidiaries to, do or cause to be done all things necessary to preserve, renew and keep in full force and effect its legal existence and, except where the failure to do so could not reasonably be expected to have a Material Adverse Effect, the rights, licenses, permits, privileges and franchises material to the conduct of its business; *provided that* the foregoing shall not prohibit any merger, amalgamation, consolidation, liquidation or dissolution permitted under **Section 9.03**.

8.04 Payment of Obligations. Such Obligor will, and will cause each of its Subsidiaries to, pay and discharge its obligations, including (i) all material Taxes, fees, assessments and governmental charges or levies imposed upon it or upon its properties or assets prior to the date on which penalties attach thereto, and all material lawful claims for labor, materials and supplies which, if unpaid, could become a Lien upon any properties or assets of Borrower or any Subsidiary, except to the extent such Taxes, fees, assessments or governmental charges or levies, or such claims are being contested in good faith by appropriate proceedings and are adequately reserved against in accordance with GAAP; and (ii) all lawful claims which, if unpaid, would by law become a Lien upon its property not constituting a Permitted Lien, except to the extent such claims are being contested in good faith by appropriate proceeds and are adequately reserved against in accordance with GAAP.

8.05 Insurance. Such Obligor will maintain, and will cause each of its Subsidiaries to maintain, with financially sound and reputable insurance companies, insurance in such amounts and against such risks as are customarily maintained by companies engaged in the same or similar businesses operating in the same or similar locations. Upon the request of Majority Lenders, Borrower shall furnish the Lenders from time to time with full information as to the insurance carried by it and, if so requested, copies of all such insurance policies. Borrower also shall use its commercially reasonable efforts to furnish to the Lenders from time to time upon the request of the Majority Lenders a certificate from Borrower's insurance broker or other insurance specialist stating that all premiums then due on the policies relating to insurance on the Collateral have been paid, that such policies are in full force and effect and that such insurance coverage. Borrower shall use commercially reasonable efforts to ensure, or cause others to ensure, that all insurance policies required under this **Section 8.05** shall provide that they shall not be terminated or cancelled nor shall any such policy be materially changed in a manner adverse to Borrower without at least 30 days' prior written notice to Borrower and the Lenders. Receipt of notice of termination or cancellation of any such insurance policies or material reduction of coverages or amounts thereunder shall entitle the Lenders, after 30 days have passed since receipt of such notice and Borrower has taken no renewal action, to renew any such policies, cause the coverages and amounts thereof to be maintained at levels required pursuant to the first sentence of this **Section 8.05** or otherwise to obtain similar insurance in place of such policies, in each case at the expense of Borrower.

8.06 Books and Records; Inspection Rights. Such Obligor will, and will cause each of its Subsidiaries to, keep proper books of record and account in which full, true and correct entries are made sufficient for the preparation of financial statements in accordance with GAAP. Such Obligor will, and will cause each of its Subsidiaries to, permit any representatives designated by the Lenders, upon reasonable prior notice and during normal business hours, to visit and inspect its properties, to examine and make extracts from its books and records (excluding records subject to attorney-client privilege or subject to binding confidentiality agreements with third parties), and to discuss its affairs, finances and condition with its officers and independent accountants, all at such reasonable times and during normal business hours (but not more often than once a year unless an Event of Default has occurred and is continuing).

8.07 Compliance with Laws and Other Obligations. Such Obligor will, and will cause each of its Subsidiaries to, (i) comply in all material respects with all laws, rules, regulations and orders of any Governmental Authority applicable to it or its property (including Environmental Laws) and (ii) comply in all material respects with all terms of Indebtedness and all other Material Agreements, except in each case where the failure to do so, individually or in the aggregate, could not reasonably be expected to result in a Material Adverse Effect.

8.08 Maintenance of Properties, Etc.

(a) Such Obligor shall, and shall cause each of its Subsidiaries to, maintain and preserve all of its properties material to its business in good working order and condition, ordinary wear and tear and damage from casualty or condemnation excepted.

(b) Without limiting the generality of **Section 8.08(a)**, Borrower shall comply with each of the following covenants with respect to the Borrower Lease:

(i) Borrower shall diligently perform and timely observe all of the material terms, covenants and conditions of the Borrower Lease on the part of Borrower to be performed and observed prior to the expiration of any applicable grace period therein provided (unless being contested in good faith) and do everything necessary to preserve and to keep unimpaired and in full force and effect the Borrower Lease during its term.

(ii) Borrower shall promptly notify Lenders of the giving of any written notice by Borrower Landlord to Borrower of any default by Borrower under the Borrower Lease, and promptly deliver to Lenders a true copy of each such notice. If Borrower shall be in default under the Borrower Lease, Lenders shall have the right (but not the obligation) to cause the default or defaults under the Borrower Lease to be remedied and otherwise exercise any and all rights of Borrower under the Borrower Lease, as may be necessary to prevent or cure any such default and, subject to and to the extent permitted by the Borrower Lease, Lenders shall have the right to enter all or any portion of the Property, at such times and in such manner as Lenders reasonably deem necessary, to prevent or to cure any such default. Without limiting the foregoing, upon any such default, Borrower shall promptly execute, acknowledge and deliver to Lenders such instruments as may reasonably be requested by Lenders to permit Lenders to cure any default under the Borrower Lease or permit Lenders to take such other action required to enable Lenders to cure or remedy the matter in default and preserve the security interest of Lenders under the Loan Documents with respect to the Borrower Facility.

(iii) Borrower shall use commercially reasonable efforts to enforce, in a commercially reasonable manner and as determined in its reasonable judgment, each material covenant or obligation of the Borrower Landlord in the Borrower Lease in accordance with its terms. Subject to the terms and requirements of the Borrower Lease, within ten (10) days after receipt of written request by Lenders, Borrower shall use reasonable efforts to obtain from the Borrower Landlord under the Borrower Lease and furnish to Lenders an estoppel certificate from Borrower Landlord stating the date through which rent has been paid and whether or not, to Borrower Landlord's knowledge, there are any defaults thereunder and specifying the nature of such claimed defaults, if any, and such other matters as Lenders may reasonably request or in the form required pursuant to the terms of the Borrower Lease. Borrower shall furnish to Lenders all information that Lenders may reasonably request from time to time in the possession of Borrower (or reasonably available to Borrower) concerning the Borrower Lease and Borrower's compliance with the Borrower Lease.

(iv) Promptly upon a Responsible Officer of Borrower obtaining knowledge that Borrower Landlord has failed to perform the material terms and provisions under the Borrower Lease and promptly upon a Responsible Officer of Borrower obtaining knowledge of a rejection or disaffirmance or purported rejection or disaffirmance of the Borrower Lease pursuant to any state or federal bankruptcy law, Borrower shall notify Lenders thereof. Borrower shall promptly notify Lenders of any request that any party to the Borrower Lease makes for arbitration or other dispute resolution procedure pursuant to the Borrower Lease and of the institution of any such arbitration or dispute resolution. To the extent permitted by the Person or body overseeing such proceeding, Borrower hereby authorizes Lenders to attend any such arbitration or dispute, and upon the occurrence and during the continuance of an Event of Default participate in any such arbitration or dispute resolution but such participation shall not be to the exclusion of Borrower; *provided*, *however*, that, in any case, Borrower shall consult with Lenders with respect to the matters related thereto. Borrower shall promptly deliver to Lenders a copy of the determination of each such arbitration or dispute resolution mechanism.

(v) Borrower shall promptly, after any Responsible Officer of Borrower obtains knowledge of such filing, notify Lenders orally of any filing by or against Borrower Landlord under the Borrower Lease of a petition under the Bankruptcy Code or other applicable law. Borrower shall thereafter promptly give written notice of such filing to Lenders, setting forth any information known to Borrower as to the date of such filing, the court in which such petition was filed, and the relief sought in such filing. Borrower shall promptly deliver to Lenders any and all notices, summonses, pleadings, applications and other documents received by Borrower from Borrower Landlord or the applicable court in connection with any such petition and any proceedings relating to such petition.

8.09 Licenses. Such Obligor shall, and shall cause each of its Subsidiaries to, obtain and maintain all licenses, authorizations, consents, filings, exemptions, registrations and other Governmental Approvals necessary in connection with the execution, delivery and performance by such Obligor of the Loan Documents, the consummation of the Transactions or the operation and conduct of its business and ownership of its properties, except where failure to do so could not reasonably be expected to have a Material Adverse Effect.

8.10 Action under Environmental Laws. Such Obligor shall, and shall cause each of its Subsidiaries to, upon becoming aware of the presence of any Hazardous Materials or the existence of any environmental liability under applicable Environmental Laws with respect to their respective businesses, operations or properties, take all actions, at their cost and expense, as shall be necessary or advisable to investigate and clean up the condition of their respective businesses, operations or properties, including all required removal, containment and remedial actions, and restore their respective businesses, operations or properties to a condition in compliance with applicable Environmental Laws except where the failure to so comply could not reasonably be expected to result in a Material Adverse Effect.

8.11 Use of Proceeds. The proceeds of the Loans will be used only as provided in **Section 2.05**. No part of the proceeds of the Loans will be used, whether directly or indirectly, for any purpose that entails a violation of any of the Regulations of the Board of Governors of the Federal Reserve System, including Regulations T, U and X.

8.12 Certain Obligations Respecting Subsidiaries; Further Assurances.

(a) **Subsidiary Guarantors**. Such Obligor will take such action, and will cause each of its Subsidiaries to take such action, from time to time as shall be necessary to ensure that all Subsidiaries that are Domestic Subsidiaries, and such Foreign Subsidiaries as are required under **Section 8.12(b)**, are "Subsidiary Guarantors" hereunder. Without limiting the generality of the foregoing, in the event that Borrower or any of its Subsidiaries shall form or acquire any new Subsidiary that is a Domestic Subsidiary or a Foreign Subsidiary meeting the requirements of **Section 8.12(b)**, such Obligor and its Subsidiaries will within 30 days of such formation or acquisition (or such longer period as may be agreed by the Majority Lenders):

(i) cause such new Subsidiary to become a "Subsidiary Guarantor" hereunder, and a "Grantor" under the Security Agreement, pursuant to a Guarantee Assumption Agreement;

(ii) to the extent required under the Security Agreement, take such action or cause such Subsidiary to take such action (including delivering such shares of stock together with undated transfer powers executed in blank) as shall be necessary to create and perfect valid and enforceable first priority (subject to Permitted Priority Liens) Liens on substantially all of the personal property of such new Subsidiary (other than Excluded Assets) as collateral security for the obligations of such new Subsidiary hereunder;

(iii) to the extent that the parent of such Subsidiary is not a party to the Security Agreement or has not otherwise pledged Equity Interests in its Subsidiaries in accordance with the terms of the Security Agreement and this Agreement, cause the parent of such Subsidiary to execute and deliver a pledge agreement in favor of the Lenders in respect of all outstanding issued shares of such Subsidiary; and

(iv) deliver such proof of corporate action, incumbency of officers, opinions of counsel and other documents with respect to such Subsidiary as is consistent with those delivered by each Obligor pursuant to **Section 6.01** or as the Majority Lenders shall have reasonably requested.

(b) **Foreign Subsidiaries**. In the event that, at any time, Foreign Subsidiaries have, in the aggregate, (i) total revenues constituting 5% or more of the total revenues of Borrower and its Subsidiaries on a consolidated basis, or (ii) total assets constituting 5% or more of the total assets of Borrower and its Subsidiaries on a consolidated basis, promptly (and, in any event, within 30 days after such time) Obligors shall cause one or more of such Foreign Subsidiaries to become Subsidiary Guarantors in the manner set forth in **Section 8.12(a)**, such that, after such Subsidiaries become Subsidiary Guarantors, the non-guarantor Foreign Subsidiaries in the aggregate shall cease to have revenues or assets, as applicable, that meet the thresholds set forth in **clauses (i)** and **(ii)** above; *provided that* no Foreign Subsidiary shall be required to become a Subsidiary Guarantor if doing so would result in material adverse tax consequences for Borrower and its Subsidiaries, taken as a whole.

(c) Further Assurances. Such Obligor will, and will cause each of its Subsidiaries to, take such action from time to time as shall reasonably be requested by the Majority Lenders to effectuate the purposes and objectives of this Agreement. In addition, Borrower shall deliver to the Lenders such other information respecting the operations, properties, business, condition (financial or otherwise) of the Obligors (including with respect to the Collateral) as the Majority Lenders may from time to time reasonably request.

Without limiting the generality of the foregoing, each Obligor will, and will cause each Person that is required to be a Subsidiary Guarantor to, take such action from time to time (including executing and delivering such assignments, security agreements, control agreements and other instruments) as shall be reasonably requested by the Majority Lenders to create, in favor of the Lenders, or the Control Agent on behalf of the Lenders, perfected security interests and Liens in substantially all of the personal property of such Obligor (other than Excluded Assets) as collateral security for the Obligations; *provided that* any such security interest or Lien shall be subject to the relevant requirements of, and limitations set forth in, the Security Documents; *provided that* notwithstanding any provision under this Agreement or other Loan Document to the contrary, Borrower and its Subsidiaries shall not be responsible for legal and filing costs, fees, expenses and other amounts in excess of $15,000 in respect of actions required under this **Section 8.12 or Section 8.15(b)** for each foreign jurisdiction, or $50,000 in the aggregate for all foreign jurisdictions.

8.13 Termination of Non-Permitted Liens. If any Responsible Officer of Borrower has knowledge of, or Borrower or any of its Subsidiaries are notified by the Lenders of, the existence of any outstanding Lien against any Property of Borrower or any of its Subsidiaries, which Lien is not a Permitted Lien, Borrower shall use its best efforts to promptly terminate or cause the termination of such Lien.

8.14 Intellectual Property. In the event that the Obligors acquire Obligor Intellectual Property during the term of this Agreement, then the provisions of this Agreement shall automatically apply thereto and any such Obligor Intellectual Property (other than Excluded Assets) shall automatically constitute part of the Collateral under the Security Documents, without further action by any party, in each case from and after the date of such acquisition (except that any representations or warranties of any Obligor shall apply to any such Obligor Intellectual Property only from and after the date, if any, subsequent to such acquisition that such representations and warranties are brought down or made anew as provided herein).

SECTION 9
NEGATIVE COVENANTS

Each Obligor covenants and agrees with the Lenders that, until the Commitments have expired or been terminated and all Obligations (other than contingent obligations for which no claim has been made to Borrower) have been paid in full in cash:

9.01 Indebtedness. Such Obligor will not, and will not permit any of its Subsidiaries to, create, incur, assume or permit to exist any Indebtedness, whether directly or indirectly, except:

(a) the Obligations

(b) Indebtedness existing on the date hereof and set forth in **Part II** of **Schedule 7.13(a)** and Permitted Refinancings thereof;

(c) Permitted Priority Debt;

(d) accounts payable to trade creditors for goods and services and current operating liabilities (not the result of the borrowing of money) incurred in the ordinary course of Borrower's or such Subsidiary's business in accordance with customary terms and not more than 60 days past due, unless contested in good faith by appropriate proceedings and reserved for in accordance with GAAP;

(e) Indebtedness consisting of guarantees resulting from endorsement of negotiable instruments for collection by any Obligor in the ordinary course of business;

(f) (i) Indebtedness of any Obligor to any other Obligor, (ii) Indebtedness of a Subsidiary that is not an Obligor to any other Subsidiary that is not an Obligor, and (ii) Indebtedness of a Subsidiary that is not an Obligor owing to an Obligor in an aggregate principal amount at any time outstanding not to exceed $500,000 (or the Equivalent Amount in other currencies) at any time (when considered in the aggregate with such Indebtedness permitted under **Section 9.01(g)(ii)**, Investments permitted under **Section 9.05(e)(iii)** and such Asset Sales permitted under **Section 9.09(d)(iii)**) *provided that*, for this clause (ii), any notes or other instruments evidencing such Indebtedness are pledged to the Control Agent for the benefit of the Lenders;

(g) (i) Guarantees by any Obligor of Indebtedness of any other Obligor; (ii) unsecured Guarantees by any Obligor of Indebtedness of a Subsidiary that is not an Obligor; *provided that* the aggregate outstanding principal amount of such Indebtedness does not exceed $500,000 (or the Equivalent Amount in other currencies) at any time (when considered in the aggregate with such Indebtedness permitted under **Section 9.01(f)(ii)**, Investments permitted under **Section 9.05(e)(iii)** and such Asset Sales permitted under **Section 9.09(d)(iii)**); and (iii) Guarantees by any Subsidiary that is not an Obligor of Indebtedness of any other Subsidiary that is not an Obligor;

(h) Indebtedness of Borrower or any of its Subsidiaries incurred to finance the acquisition, construction or improvement of any fixed or capital assets (and related software), including capital lease obligations and any Indebtedness assumed in connection with the

acquisition of any such assets or secured by a Lien on any such assets prior to the acquisition thereof; *provided that* (i) if secured, the collateral therefor consists solely of the assets being financed (together with additions, accessions and improvements thereto), the products and proceeds thereof and books and records related thereto, and (ii) the aggregate outstanding principal amount of such Indebtedness does not exceed $500,000 (or the Equivalent Amount in other currencies) at any time;

(i) Permitted Cure Debt;

(j) Indebtedness approved in advance in writing by the Majority Lenders;

(k) Deposits or advances received from customers in the ordinary course of business;

(l) Indebtedness up to an aggregate principal amount of $300,000 with respect to letters of credit issued solely to support any lease of real property entered into in the ordinary course of business;

(m) Indebtedness of any Person that becomes a Subsidiary after the date hereof; *provided* that (i) such Indebtedness exists at the time such Person becomes a Subsidiary and is not created in contemplation of or in connection with such Person becoming a Subsidiary, and (ii) the aggregate principal amount of Indebtedness permitted by this clause (m) for all such new Subsidiaries shall not exceed $250,000 at any time outstanding;

(n) Indebtedness incurred in connection with corporate credit cards in the ordinary course of business in a principal amount not to exceed $300,000 outstanding in the aggregate;

(o) Hedging Agreements entered into in the ordinary course of Borrower's financial planning solely to hedge currency, interest rate or commodity price risks (and not for speculative purposes) and in an aggregate notional amount for all such Hedging Agreements not in excess of $250,000 (or the Equivalent Amount in other currencies);

(p) unsecured Indebtedness in an aggregate principal amount at any time outstanding not to exceed $250,000;

(q) Indebtedness incurred in connection with the financing of insurance premiums in the ordinary course of business;

(r) unsecured Indebtedness of Borrower or any Subsidiary in respect of earn-out, purchase price adjustment or similar obligations in connection with a Permitted Acquisition, provided that the aggregate principal amount of all such Indebtedness under this clause (r) when taken together with the aggregate consideration paid or payable for all Permitted Acquisitions shall not exceed the amounts permitted by Section 9.03(e);

(s) Indebtedness arising from the honoring by a bank or other financial institution of a check, draft of similar instrument drawn against insufficient funds in the ordinary course of business; *provided* that such Indebtedness is extinguished within 2 Business Days of notice to Borrower or the relevant Subsidiary of its incurrence; and

(t) Indebtedness (other than for borrowed money or Indebtedness of a type described in clauses (a), (b), (c), (e), (g), (h), (i), (j) or (l) of the definition of Indebtedness) that may be deemed to exist pursuant to any guarantees, warranty or contractual service obligations, performance, surety, statutory, appeal, bid, prepayment guarantee, payment (other than payment of Indebtedness) or completion of performance guarantees or similar obligations incurred in the ordinary course of business.

9.02 Liens. Such Obligor will not, and will not permit any of its Subsidiaries to, create, incur, assume or permit to exist any Lien on any property or asset now owned by it, or assign or sell any income or revenues (including accounts receivable) or rights in respect of any thereof, except:

(a) Liens securing the Obligations;

(b) any Lien on any property or asset of Borrower or any of its Subsidiaries existing on the date hereof and set forth in **Part II** of **Schedule 7.13(b)**; *provided that* (i) no such Lien shall extend to any other property or asset of Borrower or any of its Subsidiaries and (ii) any such Lien shall secure only those obligations which it secures on the date hereof and extensions, renewals and replacements thereof that do not increase the outstanding principal amount thereof;

(c) Liens described in the definition of "Permitted Priority Debt";

(d) Liens securing Indebtedness permitted under **Section 9.01(h)**; *provided that* such Liens are restricted solely to the collateral described in **Section 9.01(h)** and attach to such collateral within 90 days after the acquisition thereof;

(e) Liens imposed by law which were incurred in the ordinary course of business, including (but not limited to) carriers', warehousemen's, landlord's and mechanics' liens and other similar liens arising in the ordinary course of business and which (x) do not in the aggregate materially detract from the value of the Property subject thereto or materially impair the use thereof in the operations of the business of such Person or (y) are being contested in good faith by appropriate proceedings, which proceedings have the effect of preventing the forfeiture or sale of the Property subject to such liens and for which adequate reserves have been made if required in accordance with GAAP;

(f) pledges or deposits made in the ordinary course of business in connection with workers' compensation, unemployment insurance or other similar social security legislation;

(g) Liens securing taxes, assessments and other governmental charges, the payment of which is not yet due or thereafter is payable without any interest or penalty or is being contested in good faith by appropriate proceedings promptly initiated and diligently conducted and for which such reserve or other appropriate provisions, if any, as shall be required by GAAP shall have been made;

(h) servitudes, easements, rights of way, restrictions and other similar encumbrances on real Property imposed by applicable Laws and encumbrances consisting of zoning or building restrictions, easements, licenses, restrictions on the use of property or minor imperfections in title thereto which, in the aggregate, are not material, and which do not in any case materially detract

from the value of the property subject thereto or interfere with the ordinary conduct of the business of any of the Obligors;

(i) with respect to any real Property, (A) such defects or encroachments as might be revealed by an up-to-date survey of such real Property; (B) the reservations, limitations, provisos and conditions expressed in the original grant, deed or patent of such property by the original owner of such real Property pursuant to applicable Laws; and (C) rights of expropriation, access or user or any similar right conferred or reserved by or in applicable Laws, which, in the aggregate for (A), (B) and (C), are not material, and which do not in any case materially detract from the value of the property subject thereto or interfere with the ordinary conduct of the business of any of the Obligors;

(j) Bankers liens, rights of setoff and similar Liens incurred on deposits made in the ordinary course of business

(k) deposits to secure the performance of bids, trade contracts, leases (not to include Indebtedness, except for Indebtedness permitted under **Section 9.01(l)**), statutory obligations, surety and appeal bonds (other than bonds related to judgments or litigation), performance bonds and other obligations of a like nature, in each case in the ordinary course of business;

(l) judgment Liens in respect of judgments that do not constitute an Event of Default under **Section 11.01(l)**;

(m) leases, licenses, subleases or sublicenses in each case, granted to others in the ordinary course of business (excluding licenses relating to Intellectual Property) that do not have an adverse impact in any material respect on the business of Borrower and its Subsidiaries, taken as a whole, or secure any Indebtedness;

(n) Liens (i) in favor of customs and revenue authorities arising as a matter of law to secure payment of customs duties in connection with the importation of goods in the ordinary course of business or (ii) on specific items of inventory or other goods and proceeds of any Person securing such Person’s obligations in respect of bankers’ acceptances or letters of credit issued or created for the account of such Person to facilitate the purchase, shipment or storage of such inventory or other goods in the ordinary course of business;

(o) Liens arising out of conditional sale, title retention, consignment or similar arrangements for sale of goods entered into by Borrower or any of its Subsidiaries in the ordinary course of business permitted by this Agreement;

(p) Liens encumbering reasonable and customary initial deposits and margin deposits and similar Liens attaching to commodity trading accounts or other brokerage accounts incurred in the ordinary course of business and not for speculative purposes;

(q) Liens solely on any cash earnest money deposits made by Borrower or any of its Subsidiaries in connection with any letter of intent or purchase agreement permitted hereunder;

(r) Liens existing on property at the time of its acquisition or existing on the property of any Person at the time such Person becomes a Subsidiary of Borrower, in each case after the

date hereof and the replacement, modification, extension or renewal of any Lien permitted by this clause upon or in the same property previously subject thereto in connection with the replacement, modification, extension or renewal of the Indebtedness secured thereby; *provided* that (A) such Lien was not created in contemplation of such acquisition or such Person becoming a Subsidiary, (B) such Lien does not extend to or cover any other assets or property (other than (1) the proceeds or products thereof, (2) after-acquired property of such Person that is affixed or incorporated into the property covered by such Lien, (3) any other Permitted Lien and (4) after- acquired property of such Person subject to a Lien securing Indebtedness and other obligations incurred prior to such time and which Indebtedness and other obligations are permitted hereunder that require, pursuant to their terms at such time, a pledge of after-acquired property, it being understood that such requirement shall not be permitted to apply to any property to which such requirement would not have applied but for such acquisition), and (C) any Indebtedness secured thereby is permitted under **Section 9.01** and any obligations not constituting Indebtedness secured thereby do not exceed $500,000;

(s) Liens on insurance policies and the proceeds thereof securing the financing of the premiums with respect thereto;

(t) Liens to secure payment of workers' compensation, employment insurance, old- age pensions, social security and other like obligations incurred in the ordinary course of business;

(u) Liens consisting of cash collateral in an aggregate amount not to exceed $600,000 only securing Indebtedness described in **Section 9.01(l)** and **Section 9.01(n)**; and

(v) licenses of any Product or Intellectual Property that is permitted under **Section 9.09**;

provided that no Lien otherwise permitted under any of the foregoing **Sections 9.02(b)** through **(u)** shall apply to any Material Intellectual Property.

9.03 Fundamental Changes and Acquisitions. Such Obligor will not, and will not permit any of its Subsidiaries to, (i) consummate any transaction of merger, amalgamation or consolidation (ii) liquidate, wind up or dissolve itself (or suffer any liquidation or dissolution), or (iii) make any Acquisition, except:

(a) Investments permitted under **Section 9.05(e)**;

(b) (i) the merger, amalgamation or consolidation of any Subsidiary with or into any Obligor, *provided* that the surviving entity is an Obligor; or (ii) the merger, amalgamation or consolidation of any Subsidiary that is not a Subsidiary Guarantor with or into any other Subsidiary that is not a Subsidiary Guarantor;

(c) the sale, lease, transfer or other disposition by any Subsidiary of any or all of its property (upon voluntary liquidation or otherwise) either (1) to any Obligor or (2) if such Subsidiary is not a Subsidiary Guarantor, to another Subsidiary of Borrower that is not a Subsidiary Guarantor;

(d) the sale, transfer or other disposition of the capital stock of any Subsidiary either (1) to any Obligor or (2) if such Subsidiary is not owned by a Subsidiary Guarantor, to another Subsidiary of Borrower that is not a Subsidiary Guarantor; and

(e) Permitted Acquisitions for consideration (including any Indebtedness pursuant to **Section 9.01(r)** and any amounts payable pursuant to **Sections 9.06(b)** and **9.06(l)**) in an amount not exceeding $5,000,000 in the aggregate.

9.04 Lines of Business. Such Obligor will not, and will not permit any of its Subsidiaries to, engage to any material extent in any business other than the business engaged in on the date hereof by Borrower or any Subsidiary or a business reasonably related thereto or constituting a reasonable extension thereof.

9.05 Investments. Such Obligor will not, and will not permit any of its Subsidiaries to, make, directly or indirectly, or permit to remain outstanding any Investments except:

(a) Investments outstanding on the date hereof and identified in **Schedule 9.05**;

(b) operating deposit accounts with banks;

(c) extensions of credit in the nature of accounts receivable or notes receivable arising from the sales of goods or services in the ordinary course of business and prepaid royalties arising in the ordinary course of business;

(d) Permitted Cash Equivalent Investments;

(e) (i) Investments by any Obligor in Borrower's wholly-owned Subsidiary Guarantors (for greater certainty, Borrower shall not be permitted to have any direct or indirect Subsidiaries that are not wholly-owned Subsidiaries), (ii) Investments by Subsidiaries that are not Subsidiary Guarantors in Subsidiaries that are not Subsidiary Guarantors, and (iii) Investments by any Obligor in any Subsidiary that is not a Subsidiary Guarantor (when considered in the aggregate with such Indebtedness permitted under **Section 9.01(f)(iii)**, Guarantees permitted under **Section 9.01(g)(ii)** and such Asset Sales permitted under **Section 9.09(d)(iii)**) in an aggregate amount at any time outstanding not to exceed $500,000;

(f) Hedging Agreements permitted under **Section 9.01(o)**;

(g) Investments consisting of security deposits with utilities and other like Persons made in the ordinary course of business;

(h) (i) employee loans, travel advances and guarantees in accordance with Borrower's usual and customary practices with respect thereto (if permitted by applicable law) which in the aggregate shall not exceed $250,000 outstanding at any time (or the Equivalent Amount in other currencies), and (ii) non-cash loans to employees, officers or directors relating to the purchase of Equity Securities of Borrower pursuant to employee stock purchase plans or agreements approved by Borrower's board of directors;

(i) Investments received in connection with any Insolvency Proceedings in respect of any customers, suppliers or clients and in settlement of delinquent obligations of, and other disputes with, customers, suppliers or clients;

(j) Investments permitted under **Section 9.01** or **Section 9.03**;

(k) noncash Investments in joint ventures or strategic alliances in the ordinary course of Borrower's business consisting of non-exclusive licensing of technology, the development of technology or the providing of technical support;

(l) Investments in an aggregate amount not to exceed $100,000 in any fiscal year of Borrower;

(m) Investments received in connection with Asset Sales permitted by **Section 9.09(g)**;

(n) Guarantees of commercial obligations of Subsidiaries (not constituting Indebtedness) in the ordinary course of business not prohibited hereby; and

(o) Investments of a Person existing at the time such Person becomes a Subsidiary of Borrower or merges with Borrower or any Subsidiary so long as such Investments were not made in contemplation of such Person becoming a Subsidiary or such merger, in an aggregate amount not to exceed $500,000 at any time.

9.06 Restricted Payments. Such Obligor will not, and will not permit any of its Subsidiaries to, declare or make, or agree to pay or make, directly or indirectly, any Restricted Payment, except:

(a) Borrower may declare and pay dividends with respect to its capital stock payable solely in additional shares of its capital stock (other than Disqualified Equity Interests);

(b) Borrower may purchase, redeem, retire, or otherwise acquire shares of its capital stock or other Equity Interests with the proceeds received from a substantially concurrent issue of new shares of its capital stock or other Equity Interests (other than Disqualified Equity Interests);

(c) Subsidiaries may declare and pay dividends ratably with respect to their Equity Interests;

(d) Borrower may make Restricted Payments pursuant to and in accordance with restricted stock agreements, stock option plans or other benefit plans for management, directors, consultants or employees of Borrower and its Subsidiaries, except that all such Restricted Payments made in cash shall be limited to an aggregate amount of $100,000 in any fiscal year of Borrower;

(e) Borrower may pay cash in lieu of the issuance of fractional shares;

(f) Borrower may honor any conversion requests in respect of any convertible securities of Borrower permitted under **Section 9.01** into Equity Interests (other than Disqualified Equity Interests) of Borrower pursuant to the terms of such convertible securities or otherwise in exchange therefor;

(g) Borrower may issue its Equity Interests (other than Disqualified Equity Interests) upon the exercise of warrants or options to purchase Equity Interests of Borrower;

(h) Borrower or any Subsidiary may receive or accept the return to Borrower or any Subsidiary of Equity Interests of Borrower constituting a portion of the purchase price consideration in settlement of indemnification claims in connection with a Permitted Acquisition pursuant to **Section 9.03(e)**; and

(i) Borrower or any Subsidiary may make payments or distributions to dissenting stockholders pursuant to applicable law in connection with any Permitted Acquisition, provided that such amounts when taken together with the aggregate consideration paid or payable for all Permitted Acquisitions shall not exceed the amounts permitted by **Section 9.03(e)**.

9.07 Payments of Indebtedness. Such Obligor will not, and will not permit any of its Subsidiaries to, make any optional or voluntary prepayments in respect of any Indebtedness for borrowed money, or any payments in respect of Permitted Cure Debt or Indebtedness for borrowed money subordinate to the Obligations, other than (i) payments of the Obligations, (ii) scheduled payments of other Indebtedness not in violation of any application subordination agreement, (iii) repayment of intercompany Indebtedness permitted in reliance upon **Section 9.01(f)**, and (iv) payments of Permitted Priority Debt in compliance with the applicable intercreditor agreement.

9.08 Change in Fiscal Year. Such Obligor will not, and will not permit any of its Subsidiaries to, change the last day of its fiscal year from that in effect on the date hereof, except to change the fiscal year of a Subsidiary acquired in connection with an Acquisition to conform its fiscal year to that of Borrower.

9.09 Sales of Assets, Etc. Such Obligor will not, and will not permit any of its Subsidiaries to, sell, lease, exclusively license (in terms of geography or field of use), transfer, or otherwise dispose of any of its Property (including accounts receivable and capital stock of Subsidiaries) to any Person in one transaction or series of transactions (any thereof, an "***Asset Sale***"), except:

(a) transfers of cash in the ordinary course of its business for equivalent value or in connection with transactions permitted hereunder;

(b) sales of inventory in the ordinary course of its business on ordinary business terms;

(c) development and other collaborative arrangements where such arrangements provide for the licenses or disclosure of Patents, Trademarks, Copyrights or other Intellectual Property rights in the ordinary course of business and consistent with general market practices where such license requires periodic payments based on per unit sales of a product over a period

of time and provided that such licenses must be true licenses as opposed to licenses that are sales transactions in substance;

(d) (i) transfers of Property by any Obligor to any other Obligor; (ii) transfers of Property by any Subsidiary to any Obligor on arm's length terms or for reasonably equivalent value; (iii) transfers of Property by any Obligor to another Subsidiary that is not a Subsidiary Guarantor (when considered in the aggregate with such Indebtedness permitted under **Section 9.01(f)(iii)**, Guarantees permitted under **Section 9.01(g)(ii)** and such Investments permitted in reliance on **Section 9.05(e)(iii)**) in an amount not exceeding $500,000 in the aggregate at any time, measured at fair market value; and (iv) transfers of Property by any Subsidiary that is not an Obligor to any other Subsidiary that is not an Obligor;

(e) dispositions of any Property that is obsolete, surplus or worn out or no longer used or useful in the Business;

(f) any transaction or disposition permitted under **Section 9.02**, **Section 9.03**, **Section 9.05** or **Section 9.06;**

(g) any other Disposition the Net Cash Proceeds of which are applied as required under **Section 3.03(b)(i)**;

(h) licenses entered into in the ordinary course of business of Obligor Intellectual Property or other property owned by an Obligor which may only be exclusive with respective to geographical location outside the United States, *provided* that such licenses must be true licenses as opposed to licenses that are sales transactions in substance;

(i) non-exclusive licenses of Obligor Intellectual Property entered into in the ordinary course of business;

(j) other Asset Sales not exceeding $100,000 in the aggregate over the term of this Agreement;

(k) Asset Sales resulting from any casualty or other insured damage to, or any taking under power of eminent domain or by condemnation or similar proceeding of, any property or assets of Borrower or any Subsidiary, *provided* that the proceeds thereof are promptly (and in any event not to exceed 90 days) applied to replace such assets; and

(l) the abandonment or other disposition of Obligor Intellectual Property that is no longer useful or material to the conduct of the business of Borrower and its Subsidiaries with a fair market value not to exceed or for aggregate proceeds not exceeding $500,000 in the aggregate over the term of this Agreement.

9.10 Transactions with Affiliates. Such Obligor will not, and will not permit any of its Subsidiaries to, sell, lease, license or otherwise transfer any assets to, or purchase, lease, license or otherwise acquire any assets from, or otherwise engage in any other transactions with, any of its Affiliates, except:

(a) transactions between or among Obligors or between or among non-Obligors;

(b) any transaction permitted under **Section 9.01**, **9.03**, **9.05**, **9.06, 9.07** or **9.09**;

(c) customary compensation and indemnification of, and other employment arrangements with, directors, officers and employees of Borrower or any Subsidiary in the ordinary course of business,

(d) Borrower may issue Equity Interests or Permitted Cure Debt to Affiliates in exchange for cash, *provided that* the terms thereof are no less favorable (including the amount of cash received by Borrower) to Borrower than those that would be obtained in a comparable arm's-length transaction with a Person not an Affiliate of Borrower;

(e) the transactions set forth on **Schedule 9.10**, *provided that* (i) the obligations of NeuroCo, Inc. in respect of services to be provided by Borrower to NeuroCo, Inc. after the date hereof in connection with that certain Assignment and License Agreement, dated as of December 31, 2014, as amended, restated, supplemented or otherwise modified from time to time, shall not exceed $250,000 in the aggregate, (ii) such services shall be billed at rate that would be obtained in a comparable arm's length transaction, and (iii) the aggregate amount of debt and other obligations owed by NeuroCo, Inc. to the Borrower shall not exceed $1,933,746;

(f) Borrower may perform its obligations under (i) the Amended and Restated Stockholders Agreement, dated as of August 7, 2014, entered into by an among the institutional investors listed on Schedule I thereto and the individuals listed on Schedule II thereto and (ii) the Registration Rights Agreement, made, entered into and effective April 7, 2011, by and among Warburg Pincus X, L.P., Warburg Pincus X Partners, L.P., Vertical Fund I, L.P, Vertical Fund II, L.P., the investors set forth on Schedule A thereto, and Borrower, as supplemented by the Joinder Agreement, dated March 31, 2015 and effective June 19, 2014; and

(g) transactions between or among Borrower and its wholly-owned Subsidiaries; *provided* that such transaction shall be upon fair and reasonable terms no less favorable to Borrower or such Subsidiary than would be obtained in a comparable arm's length transaction with a Person not an Affiliate of Borrower or such Subsidiary and which are disclosed in writing to the Lenders.

9.11 Restrictive Agreements. Such Obligor will not, and will not permit any of its Subsidiaries to, directly or indirectly, enter into, incur or be a party to, any Restrictive Agreement; *provided* that the foregoing shall not apply to (i) restrictions and conditions imposed by law or by the Loan Documents, (ii) any agreement to which Borrower or any of its Subsidiaries is party on the date hereof and listed on **Schedule 7.15**, (iii) customary restrictions and conditions contained in agreements relating to the sale of a Subsidiary or assets pending such sale, *provided* that such restrictions and conditions apply only to the Subsidiary or asset that is to be sold and such sale is permitted hereunder, (iv) restrictions or conditions imposed by any agreement relating to, and in compliance with the definitions of, Permitted Priority Debt or Permitted Cure Debt, *provided* that they do not restrict the Obligations, the grant of security interest in the Collateral, or the exercise of remedies by the Lenders against Borrower or the Collateral following an Event of Default, as contemplated by the Loan Documents (but subject to any applicable Intercreditor Agreement); (v) customary net worth provisions or similar financial maintenance provisions contained in any

agreement entered into by a Subsidiary; *provided* that any Guarantee in respect thereof is permitted hereunder; and (vi) restrictions binding a Person and existing at the time such Person becomes a Subsidiary of Borrower or merges with Borrower or any Subsidiary so long as such restrictions were (A) not entered into in contemplation of such Person becoming a Subsidiary or such merger and (B) Borrower discloses such restrictions in writing to the Lenders.

9.12 Amendments to Material Agreements. Such Obligor will not, and will not permit any of its Subsidiaries to, enter into any amendment to or modification of any Material Agreement or terminate any Material Agreement (unless replaced with another agreement that, viewed as a whole, is on better terms for Borrower or such Subsidiary) without in each case the prior written consent of the Lender (which consent shall not be unreasonably withheld or delayed).

9.13 Preservation of Borrower Lease; Operating Leases.

(a) Notwithstanding any provision of this Agreement to the contrary, Borrower shall not:

(i) Surrender, terminate, forfeit, or suffer or permit the surrender, termination or forfeiture of, or change, modify or amend, the Borrower Lease, nor transfer, sell, assign, convey, dispose of, mortgage, pledge, hypothecate, assign or encumber any of its interest in, the Borrower Lease;

(ii) Consent to, cause, agree to, or permit to occur any subordination, or consent to the subordination of, the Borrower Lease to any mortgage, deed of trust or other lien encumbering (or that may in the future encumber) the interest of Borrower Landlord in the Borrower Facility;

(iii) Waive, excuse, condone or in any way release or discharge Borrower Landlord of or from its material obligations, covenants and/or conditions under the Borrower Lease; or

(iv) Elect to treat the Borrower Lease as terminated or rejected under subsection 365 of the Bankruptcy Code or other applicable Law. Any such election made without Majority Lenders' prior written consent shall be void. If, pursuant to subsection 365 of the Bankruptcy Code or other applicable law, Borrower seeks to offset, against the rent reserved in the Borrower Lease, the amount of any damages caused by the nonperformance by Borrower Landlord of any of its obligations thereunder after the rejection by Borrower Landlord of the Borrower Lease under the Bankruptcy Code or other applicable Law, then Borrower shall not effect any offset of any amounts objected to by Lenders.

(b) Borrower will not, and will not permit any of its Subsidiaries to, make any expenditures in respect of operating leases, except for:

(i) real estate operating leases;

(ii) operating leases between Borrower and any of its wholly-owned Subsidiaries or between any of Borrower's wholly-owned Subsidiaries; and

(iii) operating leases that would not cause Borrower and its Subsidiaries, on a consolidated basis, to make payments exceeding $250,000 (or the Equivalent Amount in other currencies) in any fiscal year.

9.14 Sales and Leasebacks. Except as disclosed on **Schedule 9.14**, such Obligor will not, and will not permit any of its Subsidiaries to, become liable, directly or indirectly, with respect to any lease, whether an operating lease or a Capital Lease Obligation, of any property (whether real, personal, or mixed), whether now owned or hereafter acquired, (i) which Borrower or such Subsidiary has sold or transferred or is to sell or transfer to any other Person and (ii) which Borrower or such Subsidiary intends to use for substantially the same purposes as property which has been or is to be sold or transferred.

9.15 Hazardous Material. Such Obligor will not, and will not permit any of its Subsidiaries to, use, generate, manufacture, install, treat, release, store or dispose of any Hazardous Material, except in compliance with all applicable Environmental Laws or where the failure to comply could not reasonably be expected to result in a Material Adverse Change.

9.16 Accounting Changes. Such Obligor will not, and will not permit any of its Subsidiaries to, make any significant change in accounting treatment or reporting practices, except as required or permitted by GAAP.

9.17 Compliance with ERISA. No ERISA Affiliate shall cause or suffer to exist (a) any event that could result in the imposition of a Lien with respect to any Title IV Plan or Multiemployer Plan or (b) any other ERISA Event that would, in the aggregate, have a Material Adverse Effect.

SECTION 10
FINANCIAL COVENANTS

10.01 Minimum Liquidity. Borrower shall maintain at all times Liquidity in an amount which shall exceed the greater of (i) $3,000,000 and (ii) to the extent Borrower has incurred Permitted Priority Debt, the minimum cash balance, if any, required of Borrower by Borrower's Permitted Priority Debt creditors under the agreement governing such Permitted Priority Debt.

10.02 Minimum Revenue. Borrower and its Subsidiaries shall have annual Revenue from sales of the Product (for each respective calendar year, the "***Minimum Required Revenue***"):

(a) during the twelve month period beginning on January 1, 2015, of at least $0;

(b) during the twelve month period beginning on January 1, 2016, of at least $1,000,000;

(c) during the twelve month period beginning on January 1, 2017, of at least $5,000,000;

(d) during the twelve month period beginning on January 1, 2018, of at least $15,000,000;

(e) during the twelve month period beginning on January 1, 2019, of at least $30,000,000; and

(f) during the twelve month period beginning on January 1, 2020, of at least $40,000,000.

10.03 Cure Right.

(a) Notwithstanding anything to the contrary contained in **Section 11**, in the event that Borrower fails to comply with the covenants contained in **Section 10.02(b)** through **(f)** (such covenants for such applicable periods being the "***Specified Financial Covenants***"), Borrower shall have the right within 90 (ninety) days after the end of the respective calendar year:

(i) to issue additional shares of Equity Interests in exchange for cash (the "***Equity Cure Right***"), or

(ii) to borrow Permitted Cure Debt (the "***Subordinated Debt Cure Right***" and, collectively with the Equity Cure Right, the "***Cure Right***"), in an amount equal to (x) two (2) multiplied by (y) the Minimum Required Revenue less Borrower's annual Revenue (the "***Cure Amount***"). The cash therefrom immediately shall be contributed as equity or subordinated debt (only as permitted pursuant to **Section 9.01**), as applicable, to Borrower, and upon the receipt by Borrower of the Cure Amount pursuant to the exercise of such Cure Right, such Cure Amount shall be deemed to constitute Revenue of Borrower for purposes of the Specified Financial Covenants and the Specified Financial Covenants shall be recalculated for all purposes under the Loan Documents. If, after giving effect to the foregoing recalculation, Borrower shall then be in compliance with the requirements of the Specified Financial Covenants, Borrower shall be deemed to have satisfied the requirements of the Specified Financial Covenants as of the relevant date of determination with the same effect as though there had been no failure to comply therewith at such date, and the applicable breach of the Specified Financial Covenants that had occurred, the related Default and Event of Default, shall be deemed cured without any further action of Borrower or Lenders for all purposes under the Loan Documents. Upon the Lenders' receipt of a notice from Borrower that it intends to exercise the Cure Right with respect to **Section 10.02(b)** through **(f)** (the "***Notice of Intent to Cure***"), then, so long as no other Event of Default then exists, until the 90th day subsequent to the calendar year to which such Notice of Intent to Cure relates, neither the Control Agent nor any Lender shall exercise the right to accelerate the Loans or terminate the Commitments and neither the Control Agent nor any Lender shall exercise any right to foreclose on or take possession of the Collateral solely on the basis of an Event of Default having occurred and being continuing under **Section 10.02(b)** through **(f)** in respect of such calendar year; *provided that* if Borrower fails to raise the Cure Amount prior to the 90th day subsequent to the calendar year to which such Notice of Intent to Cure relates, the applicable breach of the Specified Financial Covenants, the related Default and Event of Default, shall be deemed to have occurred as of the day following the last day of such calendar year and the Post-Default Rate shall be deemed to have been implemented as of such date.

(b) Notwithstanding anything herein to the contrary the Cure Amount received by Borrower from investors investing in or lending to Borrower pursuant to **Section 10.03(a)** shall be used to immediately prepay the Loans, without any Prepayment Premium, credited in the order set forth in **Sections 3.03(b)(i)(A)-(E)**.

SECTION 11
EVENTS OF DEFAULT

11.01 Events of Default. Each of the following events shall constitute an "***Event of Default***":

(a) Borrower shall fail to pay any principal of any Loan when and as the same shall become due and payable, whether at the due date thereof or at a date fixed for prepayment thereof or otherwise;

(b) any Obligor shall fail to pay any Obligation (other than an amount referred to in **Section 11.01(a)**) when and as the same shall become due and payable, and such failure shall continue unremedied for a period of three (3) Business Days;

(c) any representation or warranty made or deemed made by or on behalf of Borrower or any of its Subsidiaries in or in connection with this Agreement or any other Loan Document or any amendment or modification hereof or thereof, or in any report, certificate, financial statement or other document furnished pursuant to or in connection with this Agreement or any other Loan Document or any amendment or modification hereof or thereof, shall: (i) prove to have been incorrect when made or deemed made to the extent that such representation or warranty contains any materiality or Material Adverse Effect qualifier; or (ii) prove to have been incorrect in any material respect when made or deemed made to the extent that such representation or warranty does not otherwise contain any materiality or Material Adverse Effect qualifier;

(d) any Obligor shall fail to observe or perform any covenant, condition or agreement contained in **Section 8.01** (and such failure continues unremedied for five (5) days), **Section 8.02** (and such failure continues unremedied for five (5) days), **8.03(a)** (with respect to Borrower's existence), **8.11**, **8.12(a)** or **(b)**, **8.14**, **9** or **10**;

(e) any Obligor shall fail to observe or perform any covenant, condition or agreement contained in this Agreement (other than those specified in Section 11.01(a), (b) or (d)) or any other Loan Document, and such failure shall continue unremedied for a period of 20 or more days after a Responsible Officer of Borrower has actual knowledge or reasonably should have known of such failure;

(f) Borrower or any of its Subsidiaries shall fail to make any payment (whether of principal or interest and regardless of amount) in respect of any Material Indebtedness, when and as the same shall become due and payable after giving effect to any applicable grace or cure period as originally provided by the terms of such Indebtedness;

(g) any material breach of, or "event of default" or similar event by any Obligor under, any Material Agreement shall occur, which would give the counterparty to such Material Agreement the right to terminate such Material Agreement pursuant to the terms

thereof (after giving effect to any applicable grace or cure period and provided that such material breach, "event of default" or similar event is not being contested in good faith with reasonable basis by such Obligor), to the extent that (1) (i) the Obligor has received written notice of (A) termination of such Material Agreement or (B) such material breach, "event of default", or similar event and written notice of the counterparty's intent to terminate such Material Agreement on the basis thereof, and (ii) the counterparty to such Material Agreement has not waived such material breach, "event of default" or similar event or (2) litigation has commenced between such Obligor and the counterparty regarding any material breach of, or "event of default" or similar event by any Obligor under such Material Agreement;

(h) (i) any material breach of, or "event of default" or similar event under, the documentation governing any Material Indebtedness shall occur, or (ii) any event or condition occurs (A) that results in any Material Indebtedness becoming due prior to its scheduled maturity or (B) that enables or permits (with or without the giving of notice, the lapse of time or both) the holder or holders of such Material Indebtedness or any trustee or agent on its or their behalf to cause such Material Indebtedness to become due, or to require the prepayment, repurchase, redemption or defeasance thereof, prior to its scheduled maturity; *provided that* this **Section 11.01(h)** shall not apply to secured Indebtedness that becomes due as a result of the voluntary sale or transfer of the property or assets securing such Material Indebtedness or the conversion of convertible Indebtedness into Equity Interests (other than Disqualified Equity Interests) of the Borrower;

(i) any Obligor:

(i) becomes insolvent, or generally does not or becomes unable to pay its debts or meet its liabilities as the same become due, or admits in writing its inability to pay its debts generally, or declares any general moratorium on its indebtedness, or proposes a compromise or arrangement or deed of company arrangement between it and any class of its creditors;

(ii) commits an act of bankruptcy or makes an assignment of its property for the general benefit of its creditors or makes a proposal (or files a notice of its intention to do so);

(iii) institutes any proceeding seeking to adjudicate it an insolvent, or seeking liquidation, dissolution, winding-up, reorganization, compromise, arrangement, adjustment, protection, moratorium, relief, stay of proceedings of creditors generally (or any class of creditors), or composition of it or its debts or any other relief, under any federal, provincial or foreign Law now or hereafter in effect relating to bankruptcy, winding-up, insolvency, reorganization, receivership, plans of arrangement or relief or protection of debtors or at common law or in equity, or files an answer admitting the material allegations of a petition filed against it in any such proceeding;

(iv) applies for the appointment of, or the taking of possession by, a receiver, interim receiver, receiver/manager, sequestrator, conservator, custodian, administrator, trustee, liquidator, voluntary administrator, receiver and manager or other similar official for it or any substantial part of its property; or

(v) takes any action, corporate or otherwise, to approve, effect, consent to or authorize any of the actions described in this **Section 11.01(i)** or **(j)**, or otherwise acts in furtherance thereof or fails to act in a timely and appropriate manner in defense thereof;

(j) any involuntary petition is filed, application made or other proceeding instituted against or in respect of Borrower or any Subsidiary (and not removed, dismissed or stayed for a period of forty-five (45) days):

(i) seeking to adjudicate it an insolvent;

(ii) seeking a receiving order against it;

(iii) seeking liquidation, dissolution, winding-up, reorganization, compromise, arrangement, adjustment, protection, moratorium, relief, stay of proceedings of creditors generally (or any class of creditors), deed of company arrangement or composition of it or its debts or any other relief under any federal, provincial or foreign law now or hereafter in effect relating to bankruptcy, winding-up, insolvency, reorganization, receivership, plans of arrangement or relief or protection of debtors or at common law or in equity; or

(iv) seeking the entry of an order for relief or the appointment of, or the taking of possession by, a receiver, interim receiver, receiver/manager, sequestrator, conservator, custodian, administrator, trustee, liquidator, voluntary administrator, receiver and manager or other similar official for it or any substantial part of its property; *provided that* if an order, decree or judgment is granted or entered (whether or not entered or subject to appeal) against Borrower or such Obligor thereunder in the interim, such grace period will cease to apply; *provided further that* if Borrower or such Obligor files an answer admitting the material allegations of a petition filed against it in any such proceeding, such grace period will cease to apply;

(k) any other event occurs which, under the laws of any applicable jurisdiction, has an effect equivalent to any of the events referred to in either of **Section 11.01(i)** or **(j)**;

(l) one or more judgments for the payment of money in an aggregate amount in excess of $250,000 (or the Equivalent Amount in other currencies) (to the extent not covered by independent third party insurance as to which the insurer has been notified of the potential claim and does not dispute coverage) shall be rendered against any Obligor or any combination thereof and the same shall remain undismissed, unsatisfied, undischarged for a period of 45 consecutive days during which execution shall not be effectively stayed, or any action shall be legally taken by a judgment creditor to attach or levy upon any assets of any Obligor to enforce any such judgment;

(m) (i) an ERISA Event shall have occurred that, when taken together with all other ERISA Events that have occurred, could reasonably be expected to result in liability of Borrower and its Subsidiaries in an aggregate amount exceeding (i) $250,000 in any year or (ii) $750,000 for all periods until repayment of all Obligations;

(n) a Change of Control shall have occurred;

(o) a Material Adverse Change shall have occurred;

(p) (i) any Lien created by any of the Security Documents over Collateral that, individually or in the aggregate, exceeds $10,000 in fair market value, shall at any time not constitute a valid and perfected Lien on such Collateral in favor of the Lenders, free and clear of all other Liens (other than Permitted Liens) to the extent required by the Security Documents, (ii) except for expiration in accordance with its terms, any of the Security Documents or any Guarantee of any of the Obligations (including that contained in **Section 13**) shall for whatever reason cease to be in full force and effect, or (iii) any of the Security Documents or any Guarantee of any of the Obligations (including that contained in **Section 13**), or the enforceability thereof, shall be repudiated or contested by any Obligor; and

(q) any injunction, whether temporary or permanent, shall be rendered against any Obligor by any Governmental Authority that prevents the Obligors from selling or manufacturing the Product or its commercially available successors, or any of their other material and commercially available products, in each case in the United States for more than 45 consecutive calendar days.

11.02 Remedies. (a) Upon the occurrence of any Event of Default, then, and in every such event (other than an Event of Default described in **Section 11.01(i)**, **(j)** or **(k)**), and at any time thereafter during the continuance of such event, Majority Lenders may, by notice to Borrower, take either or both of the following actions, at the same or different times: (i) terminate the Commitments, and thereupon the Commitments shall terminate immediately, and (ii) declare the Loans then outstanding to be due and payable in whole (or in part, in which case any principal not so declared to be due and payable may thereafter be declared to be due and payable), and thereupon the principal of the Loans so declared to be due and payable, together with accrued interest thereon and all fees and other Obligations, shall become due and payable immediately (in the case of the Loans, at the Redemption Price therefor), without presentment, demand, protest or other notice of any kind, all of which are hereby waived by each Obligor.

(b) Upon the occurrence of any Event of Default described in **Section 11.01(i)**, **(j)** or **(k)**, the Commitments shall automatically terminate and the principal of the Loans then outstanding, together with accrued interest thereon and all fees and other Obligations, shall automatically become due and payable immediately (in the case of the Loans, at the Redemption Price therefor), without presentment, demand, protest or other notice of any kind, all of which are hereby waived by each Obligor.

(c) **Prepayment Premium and Redemption Price**. (i) For the avoidance of doubt, the Prepayment Premium (as a component of the Redemption Price) and the fees specified in the Fee Letter shall be due and payable whenever so stated in this Agreement or the Fee Letter, as applicable, or by any applicable operation of law, regardless of the circumstances causing any related acceleration or payment prior to the Stated Maturity Date, including without limitation any Event of Default or other failure to comply with the terms of this Agreement, whether or not notice thereof has been given, or any acceleration by, through, or on account of any bankruptcy filing.

(ii) For the avoidance of doubt, the Prepayment Premium (as a component of the Redemption Price) shall be due and payable at any time the Loans become due and payable prior to the Stated Maturity Date for any reason, whether due to acceleration pursuant to the

terms of this Agreement (in which case it shall be due immediately, upon the giving of notice to Borrower in accordance with Section 11.02(a), or automatically, in accordance with Section 11.02(b)), by operation of law or otherwise (including, without limitation, where bankruptcy filings or the exercise of any bankruptcy right or power, whether in any plan of reorganization or otherwise, results or would result in a payment, discharge, modification or other treatment of the Loans or Loan Documents that would otherwise evade, avoid, or otherwise disappoint the expectations of Lenders in receiving the full benefit of their bargained-for Prepayment Premium or Redemption Price as provided herein). The Obligors and Lenders acknowledge and agree that any Prepayment Premium due and payable in accordance with this Agreement shall not constitute unmatured interest, whether under section 502(b)(3) of the Bankruptcy Code or otherwise, but instead is reasonably calculated to ensure that the Lenders receive the benefit of their bargain under the terms of this Agreement.

(iii) Each Obligor acknowledges and agrees that the Lenders shall be entitled to recover the full amount of the Redemption Price in each and every circumstance such amount is due pursuant to or in connection with this Agreement, including without limitation in the case of any Obligor's bankruptcy filing, so that the Lenders shall receive the benefit of their bargain hereunder and otherwise receive full recovery as agreed under every possible circumstance, and Borrower hereby waives to the extent permitted by applicable law any defense to payment, whether such defense may be based in public policy, ambiguity, or otherwise. Each Obligor further acknowledges and agrees, and waives to the extent permitted by applicable law any argument to the contrary, that payment of such amount does not constitute a penalty or an otherwise unenforceable or invalid obligation. Any damages that the Lenders may suffer or incur resulting from or arising in connection with any breach by Borrower shall constitute secured obligations owing to the Lenders.

SECTION 12
MISCELLANEOUS

12.01 No Waiver. No failure on the part of the Lenders to exercise and no delay in exercising, and no course of dealing with respect to, any right, power or privilege under any Loan Document shall operate as a waiver thereof, nor shall any single or partial exercise of any right, power or privilege under any Loan Document preclude any other or further exercise thereof or the exercise of any other right, power or privilege. The remedies provided herein are cumulative and not exclusive of any remedies provided by law.

12.02 Notices. All notices, requests, instructions, directions and other communications provided for herein (including any modifications of, or waivers, requests or consents under, this Agreement) shall be given or made in writing (including by telecopy) delivered, if to Borrower, another Obligor or the Lenders, to its address specified on the signature pages hereto or its Guarantee Assumption Agreement, as the case may be, or at such other address as shall be designated by such party in a notice to the other parties. Except as otherwise provided in this Agreement, all such communications shall be deemed to have been duly given upon receipt of a legible copy thereof, in each case given or addressed as aforesaid. All such communications provided for herein by telecopy shall be confirmed in writing promptly after the delivery of such communication (it being understood that non-receipt of written confirmation of such communication shall not invalidate such communication). Notwithstanding anything to the

contrary in this Agreement, all notices, documents, certificates and other deliverables to the Lenders by any Obligor may be made solely to the Control Agent and the Control Agent shall promptly deliver such notices, documents, certificates and other deliverables to the other Lenders hereunder.

12.03 Expenses, Indemnification, Etc.

(a) **Expenses**. Borrower agrees to pay or reimburse (i) the Lenders for all of their reasonable and documented out of pocket costs and expenses (including the reasonable and documented fees and expenses of Cooley LLP, special counsel to the Lenders, and printing, reproduction, document delivery, communication and travel costs) in connection with (x) the negotiation, preparation, execution and delivery of this Agreement and the other Loan Documents and the making of the Loans (exclusive of post-closing costs), (y) post-closing costs and (z) the negotiation or preparation of any modification, supplement or waiver of any of the terms of this Agreement or any of the other Loan Documents (whether or not consummated) and (ii) the Lenders for all of their documented out of pocket costs and expenses (including the documented fees and expenses of legal counsel) in connection with any enforcement or collection proceedings resulting from the occurrence of an Event of Default; *provided, however, that* Borrower shall not be required to pay or reimburse any amounts pursuant to **Section 12.03(a)(i)(x)** in excess of the Expense Cap; *provided further that*, so long as the first Borrowing is made, then such fees shall be credited from the fees paid by Borrower pursuant to the Fee Letter.

(b) **Indemnification**. Borrower hereby indemnifies the Lenders, their Affiliates, and their respective directors, officers, employees, attorneys, agents, advisors and controlling parties (each, an "***Indemnified Party***") from and against, and agrees to hold them harmless against, any and all Claims and Losses of any kind (including reasonable and documented fees and disbursements of counsel), joint or several, that may be incurred by or asserted or awarded against any Indemnified Party, in each case arising out of or in connection with or relating to any investigation, litigation or proceeding or the preparation of any defense with respect thereto arising out of or in connection with or relating to this Agreement or any of the other Loan Documents or the transactions contemplated hereby or thereby or any use made or proposed to be made with the proceeds of the Loans, whether or not such investigation, litigation or proceeding is brought by Borrower, any of its shareholders or creditors, an Indemnified Party or any other Person, or an Indemnified Party is otherwise a party thereto, and whether or not any of the conditions precedent set forth in **Section 6** are satisfied or the other transactions contemplated by this Agreement are consummated, except to the extent such Claim or Loss (x) is found in a final, non-appealable judgment by a court of competent jurisdiction to have resulted from such Indemnified Party's gross negligence or willful misconduct or (y) arises from any dispute among Indemnified Parties not involving any action of an Obligor. No Obligor shall assert any claim against any Indemnified Party, on any theory of liability, for consequential, indirect, special or punitive damages arising out of or otherwise relating to this Agreement or any of the other Loan Documents or any of the transactions contemplated hereby or thereby or the actual or proposed use of the proceeds of the Loans. Borrower, its Subsidiaries and Affiliates and their respective directors, officers, employees, attorneys, agents, advisors and controlling parties are each sometimes referred to in this Agreement as a "***Borrower Party***." No Lender shall assert any claim against any Borrower Party, on any theory of liability, for consequential,

indirect, special or punitive damages arising out of or otherwise relating to this Agreement or any of the other Loan Documents or any of the transactions contemplated hereby or thereby or the actual or proposed use of the proceeds of the Loans. This **Section 12.03(b)** shall not apply with respect to Taxes other than any Taxes that represent losses, claims, damages, etc. arising from any non-Tax claim.

12.04 Amendments, Etc. Except as otherwise expressly provided in this Agreement, any provision of this Agreement may be modified or supplemented only by an instrument in writing signed by Borrower and the Lenders or the Majority Lenders, as applicable. Any consent, approval (including without limitation any approval of or authorization for any amendment to any of the Loan Documents), instruction or other expression of the Lenders under any of the Loan Documents may be obtained by an instrument in writing signed in one or more counterparts by Majority Lenders; provided however, that the consent of all of the Lenders shall be required to:

(i) amend, modify, discharge, terminate or waive any of the terms of this Agreement if such amendment, modification, discharge, termination or waiver would increase the amount of the Loans, reduce the fees payable hereunder, reduce interest rates or other amounts payable with respect to the Loans, extend any date fixed for payment of principal, interest or other amounts payable relating to the Loans or extend the repayment dates of the Loans;

(ii) amend the provisions of **Section 6**;

(iii) amend, modify, discharge, terminate or waive any Security Document if the effect is to release a material part of the Collateral subject thereto otherwise than pursuant to the terms hereof or thereof; or

(iv) amend this **Section 12.04**.

Notwithstanding anything to the contrary herein, a Defaulting Lender shall not have any right to approve or disapprove any amendment, waiver or consent hereunder (and any amendment, waiver or consent which by its terms requires the consent of all Lenders or each affected Lender may be effected with the consent of the applicable Lenders other than Defaulting Lenders), except that (x) the Commitment of any Defaulting Lender may not be increased or extended without the consent of such Lender and (y) any waiver, amendment or modification requiring the consent of all Lenders or each affected Lender that by its terms affects any Defaulting Lender more adversely than other affected Lenders shall require the consent of such Defaulting Lender.

12.05 Successors and Assigns.

(a) **General**. The provisions of this Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns permitted hereby, except that Borrower may not assign or otherwise transfer any of its rights or obligations hereunder without the prior written consent of the Lenders. Any of the Lenders may assign or otherwise transfer any of their rights or obligations hereunder to an assignee in accordance with the provisions of **Section 12.05(b)**, (ii) by way of participation in accordance with the provisions of **Section 12.05(e)** or (iii) by way of pledge or assignment of a security interest subject to the

restrictions of **Section 12.05(g)**. Nothing in this Agreement, expressed or implied, shall be construed to confer upon any Person (other than the parties hereto, their respective successors and assigns permitted hereby, Participants to the extent provided in **Section 12.05(d)** and, to the extent expressly contemplated hereby, the Indemnified Parties) any legal or equitable right, remedy or claim under or by reason of this Agreement.

(b) **Assignments by Lenders**. Any of the Lenders may at any time assign to one or more Eligible Transferees (or, if an Event of Default has occurred and is continuing, to any Person) all or a portion of their rights and obligations under this Agreement (including all or a portion of the Commitment and the Loans at the time owing to it); *provided, however, that* no such assignment shall be made to Borrower, an Affiliate of Borrower, or any employees or directors of Borrower at any time. Subject to the recording thereof by the Lenders pursuant to **Section 12.05(c)**, from and after the effective date specified in each Assignment and Assumption, the assignee thereunder shall be a party to this Agreement and, to the extent of the interest assigned by such Assignment and Assumption, have the rights and obligations of the Lenders under this Agreement, and correspondingly the assigning Lender shall, to the extent of the interest assigned by such Assignment and Assumption, be released from its obligations under this Agreement (and, in the case of an Assignment and Assumption covering all of a Lender's rights and obligations under this Agreement, such Lender shall cease to be a party hereto) but shall continue to be entitled to the benefits of **Section 5** and **Section 12.03**. Any assignment or transfer by a Lender of rights or obligations under this Agreement that does not comply with this **Section 12.05(b)** shall be treated for purposes of this Agreement as a sale by such Lender of a participation in such rights and obligations in accordance with **Section 12.05(e)**.

(c) **Amendments to Loan Documents**. Each of the Lenders and the Obligors agrees to enter into such amendments to the Loan Documents, and such additional Security Documents and other instruments and agreements, in each case in form and substance reasonably acceptable to the Lenders and the Obligors, as shall reasonably be necessary to implement and give effect to any assignment made under this **Section 12.05**.

(d) **Register**. Each Lender, acting solely for this purpose as an agent of Borrower, shall maintain at one of its offices (which shall be the office of the Control Agent) a register for the recordation of the name and address of any assignee of the Lenders and the Commitment and outstanding principal amount of the Loans owing thereto (the "***Register***"). The entries in the Register shall be conclusive, absent manifest error, and Borrower shall treat each Person whose name is recorded in the Register pursuant to the terms hereof as the "Lender" hereunder for all purposes of this Agreement, notwithstanding notice to the contrary. The Register shall be available for inspection by Borrower, at any reasonable time and from time to time upon reasonable prior notice. This Section 12.05 shall be construed so that the Obligations are at all times maintained in "registered form" within the meaning of Sections 871(h)(2) and 881(c)(2) of the Code and any related regulations (and any other relevant or successor provisions of the Code or such regulations).

(e) **Participations**. Any of the Lenders may at any time, without the consent of, or notice to, Borrower, sell participations to any Person (other than a natural person or Borrower or any of Borrower's Affiliates or Subsidiaries) (each, a "***Participant***") in all or a portion of such Lender's rights and/or obligations under this Agreement (including all or a portion of the

Commitment and/or the Loans owing to it); *provided that* (i) such Lender's obligations under this Agreement shall remain unchanged, (ii) such Lender shall remain solely responsible to the other parties hereto for the performance of such obligations and (iii) Borrower shall continue to deal solely and directly with the Lenders in connection therewith.

Any agreement or instrument pursuant to which a Lender sells such a participation shall provide that such Lender shall retain the sole right to enforce this Agreement and to approve any amendment, modification or waiver of any provision of this Agreement; *provided that* such agreement or instrument may provide that such Lender will not, without the consent of the Participant, agree to any amendment, modification or waiver that would (i) increase or extend the term of such Lender's Commitment, (ii) extend the date fixed for the payment of principal of or interest on the Loans or any portion of any fee hereunder payable to the Participant, (iii) reduce the amount of any such payment of principal, or (iv) reduce the rate at which interest is payable thereon to a level below the rate at which the Participant is entitled to receive such interest. Subject to **Section 12.05(e)**, Borrower agrees that each Participant shall be entitled to the benefits of **Section 5** to the same extent as if it were a Lender and had acquired its interest by assignment pursuant to **Section 12.05(b)**. To the extent permitted by law, each Participant also shall be entitled to the benefits of **Section 4.04(a)** as though it were the Lender

(f) **Limitations on Rights of Participants**. A Participant shall not be entitled to receive any greater payment under **Section 5.01** or **5.03** than the applicable Lender would have been entitled to receive with respect to the participation sold to such Participant, unless the sale of the participation to such Participant is made with Borrower's prior written consent.

(g) **Certain Pledges**. The Lenders may at any time pledge or assign a security interest in all or any portion of its rights under this Agreement and any other Loan Document to secure obligations of the Lenders, including any pledge or assignment to secure obligations to a Federal Reserve Bank; *provided that* no such pledge or assignment shall release the Lenders from any of their obligations hereunder or substitute any such pledgee or assignee for the Lenders as a party hereto.

12.06 Survival. The obligations of Borrower under **Sections 5.01**, **5.02**, **5.03**, **12.03**, **12.05**, **12.09**, **12.10**, **12.11**, **12.12**, **12.13**, **12.14, 12.15** and **Section 13** (solely to the extent guaranteeing any of the obligations under the foregoing Sections) shall survive the repayment of the Loans and the termination of the Commitments and, in the case of a Lender's assignment of any interest in its Commitment or its Loans hereunder, shall survive, in the case of any event or circumstance that occurred prior to the effective date of such assignment, the making of such assignment, notwithstanding that the Lenders may cease to be "Lenders" hereunder. In addition, each representation and warranty made, or deemed to be made by a notice of the Loans, herein or pursuant hereto shall survive the making of such representation and warranty.

12.07 Captions. The table of contents and captions and section headings appearing herein are included solely for convenience of reference and are not intended to affect the interpretation of any provision of this Agreement.

12.08 Counterparts. This Agreement may be executed in any number of counterparts, all of which taken together shall constitute one and the same instrument and any of the parties hereto may execute this Agreement by signing any such counterpart.

12.09 Governing Law. This Agreement and the rights and obligations of the parties hereunder shall be governed by, and construed in accordance with, the law of the State of New York, without regard to principles of conflicts of laws that would result in the application of the laws of any other jurisdiction; *provided that* Section 5-1401 of the New York General Obligations Law shall apply.

12.10 Jurisdiction, Service of Process and Venue.

(a) **Submission to Jurisdiction**. Each Obligor agrees that any suit, action or proceeding with respect to this Agreement or any other Loan Document to which it is a party or any judgment entered by any court in respect thereof may be brought initially in the federal or state courts in Houston, Texas or in the courts of its own corporate domicile and irrevocably submits to the non-exclusive jurisdiction of each such court for the purpose of any such suit, action, proceeding or judgment. This **Section 12.10(a)** is for the benefit of the Lenders only and, as a result, no Lender shall be prevented from taking proceedings in any other courts with jurisdiction. To the extent allowed by applicable Laws, the Lenders may take concurrent proceedings in any number of jurisdictions.

(b) **Alternative Process**. Nothing herein shall in any way be deemed to limit the ability of the Lenders to serve any such process or summonses in any other manner permitted by applicable law.

(c) **Waiver of Venue, Etc**. Each Obligor irrevocably waives to the fullest extent permitted by law any objection that it may now or hereafter have to the laying of the venue of any suit, action or proceeding arising out of or relating to this Agreement or any other Loan Document and hereby further irrevocably waives to the fullest extent permitted by law any claim that any such suit, action or proceeding brought in any such court has been brought in an inconvenient forum. A final judgment (in respect of which time for all appeals has elapsed) in any such suit, action or proceeding shall be conclusive and may be enforced in any court to the jurisdiction of which such Obligor is or may be subject, by suit upon judgment.

12.11 Waiver of Jury Trial. EACH OBLIGOR AND EACH LENDER HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY SUIT, ACTION OR PROCEEDING ARISING OUT OF OR RELATING TO THIS AGREEMENT, THE OTHER LOAN DOCUMENTS OR THE TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY.

12.12 Waiver of Immunity. To the extent that any Obligor may be or become entitled to claim for itself or its Property or revenues any immunity on the ground of sovereignty or the like from suit, court jurisdiction, attachment prior to judgment, attachment in aid of execution of a judgment or execution of a judgment, and to the extent that in any such jurisdiction there may be attributed such an immunity (whether or not claimed), such Obligor hereby irrevocably agrees

not to claim and hereby irrevocably waives such immunity with respect to its obligations under this Agreement and the other Loan Documents.

12.13 Entire Agreement. This Agreement and the other Loan Documents constitute the entire agreement among the parties with respect to the subject matter hereof and thereof and supersede any and all previous agreements and understandings, oral or written, relating to the subject matter hereof. EACH OBLIGOR ACKNOWLEDGES, REPRESENTS AND WARRANTS THAT IN DECIDING TO ENTER INTO THIS AGREEMENT AND THE OTHER LOAN DOCUMENTS OR IN TAKING OR NOT TAKING ANY ACTION HEREUNDER OR THEREUNDER, IT HAS NOT RELIED, AND WILL NOT RELY, ON ANY STATEMENT, REPRESENTATION, WARRANTY, COVENANT, AGREEMENT OR UNDERSTANDING, WHETHER WRITTEN OR ORAL, OF OR WITH THE LENDERS OTHER THAN THOSE EXPRESSLY SET FORTH IN THIS AGREEMENT AND THE OTHER LOAN DOCUMENTS.

12.14 Severability. If any provision hereof is found by a court to be invalid or unenforceable, to the fullest extent permitted by applicable law the parties agree that such invalidity or unenforceability shall not impair the validity or enforceability of any other provision hereof.

12.15 No Fiduciary Relationship. Borrower acknowledges that the Lenders have no fiduciary relationship with, or fiduciary duty to, Borrower arising out of or in connection with this Agreement or the other Loan Documents, and the relationship between the Lenders and Borrower is solely that of creditor and debtor. This Agreement and the other Loan Documents do not create a joint venture among the parties.

12.16 Confidentiality. The Lenders agree to maintain the confidentiality of the Confidential Information (as defined in the Non-Disclosure Agreement (defined below)) in accordance with the terms of that certain confidentiality agreement dated July 7, 2015 between Borrower and CRG (the "***Non-Disclosure Agreement***"). Any new Lender that becomes party to this Agreement hereby agrees to be bound by the terms of the Non-Disclosure Agreement. The parties to this Agreement shall prepare a mutually agreeable press release announcing the completion of this transaction on the first Borrowing Date. The Lenders shall not issue any press release regarding this Agreement without the prior review and approval of Borrower.

12.17 USA PATRIOT Act. The Lenders hereby notify Borrower that pursuant to the requirements of the USA PATRIOT Act (Title III of Pub. L. 107-56 (signed into law October 26, 2001)) (the "***Act***"), they are required to obtain, verify and record information that identifies Borrower, which information includes the name and address of Borrower and other information that will allow such Lender to identify Borrower in accordance with the Act.

12.18 Maximum Rate of Interest. Notwithstanding anything to the contrary contained in any Loan Document, the interest paid or agreed to be paid under the Loan Documents shall not exceed the maximum rate of non-usurious interest permitted by applicable Law (in each case, the "***Maximum Rate***"). If the Lenders shall receive interest in an amount that exceeds the Maximum Rate, the excess interest shall be applied to the principal of the Loans, and not to the payment of interest, or, if the excessive interest exceeds such unpaid principal, the amount exceeding the unpaid balance shall be refunded to the applicable Obligor. In determining whether the interest

contracted for, charged, or received by the Lenders exceeds the Maximum Rate, the Lenders may, to the extent permitted by applicable Law, (a) characterize any payment that is not principal as an expense, fee, or premium rather than interest, (b) exclude voluntary prepayments and the effects thereof, (c) amortize, prorate, allocate, and spread in equal or unequal parts the total amount of interest throughout the contemplated term of the Indebtedness and other obligations of any Obligor hereunder, or (d) allocate interest between portions of such Indebtedness and other obligations under the Loan Documents to the end that no such portion shall bear interest at a rate greater than that permitted by applicable Law.

12.19 Certain Waivers.

(a) **Real Property Security Waivers**.

(i) Each Obligor acknowledges that all or any portion of the Obligations may now or hereafter be secured by a Lien or Liens upon real property evidenced by certain documents including, without limitation, deeds of trust and assignments of rents. Lenders may, pursuant to the terms of said real property security documents and applicable law, foreclose under all or any portion of one or more of said Liens by means of judicial or nonjudicial sale or sales. Each Obligor agrees that Lenders may exercise whatever rights and remedies they may have with respect to said real property security, all without affecting the liability of any Obligor under the Loan Documents, except to the extent Lenders realize payment by such action or proceeding. No election to proceed in one form of action or against any party, or on any obligation shall constitute a waiver of Lenders' rights to proceed in any other form of action or against any Obligor or any other Person, or diminish the liability of any Obligor, or affect the right of Lenders to proceed against any Obligor for any deficiency, except to the extent Lenders realize payment by such action, notwithstanding the effect of such action upon any Obligor’s rights of subrogation, reimbursement or indemnity, if any, against Obligor or any other Person.

(ii) To the extent permitted under applicable law, each Obligor hereby waives any rights and defenses that are or may become available to such Obligor by reason of Sections 2787 to 2855, inclusive, of the California Civil Code.

(iii) To the extent permitted under applicable law, each Obligor hereby waives all rights and defenses that such Obligor may have because the Obligations are or may be secured by real property. This means, among other things:

(A) Lenders may collect from any Obligor without first foreclosing on any real or personal property collateral pledged by any other Obligor;

(B) If Lenders foreclose on any real property collateral pledged by any Obligor:

(1) The amount of the Loans may be reduced only by the price for which that collateral is sold at the foreclosure sale, even if the collateral is worth more than the sale price; and

(2) Lenders may collect from each Obligor even if Lenders, by foreclosing on the real property collateral, have destroyed any right that such Obligor may have to collect from any other Obligor.

(3) To the extent permitted under applicable law, this is an unconditional and irrevocable waiver of any rights and defenses each Obligor may have because the Obligations are or may be secured by real property. These rights and defenses include, but are not limited to, any rights or defenses based upon Section 580a, 580b, 580d or 726 of the California Code of Civil Procedure.

(iv) To the extent permitted under applicable law, each Obligor waives all rights and defenses arising out of an election of remedies by Lenders, even though that election of remedies, such as a nonjudicial foreclosure with respect to security for a guaranteed obligation, has destroyed such Obligor's rights of subrogation and reimbursement against the principal by the operation of Section 580d of the California Code of Civil Procedure or otherwise.

(b) **Waiver of Marshaling**. WITHOUT LIMITING THE FOREGOING IN ANY WAY, EACH OBLIGOR HEREBY IRREVOCABLY WAIVES AND RELEASES, TO THE EXTENT PERMITTED BY LAW, ANY AND ALL RIGHTS IT MAY HAVE AT ANY TIME (WHETHER ARISING DIRECTLY OR INDIRECTLY, BY OPERATION OF LAW, CONTRACT OR OTHERWISE) TO REQUIRE THE MARSHALING OF ANY ASSETS OF ANY OBLIGOR, WHICH RIGHT OF MARSHALING MIGHT OTHERWISE ARISE FROM ANY PAYMENTS MADE OR OBLIGATIONS PERFORMED.

SECTION 13
GUARANTEE

13.01 The Guarantee. The Subsidiary Guarantors hereby jointly and severally guarantee to the Lenders and their successors and assigns the prompt payment in full when due (whether at stated maturity, by acceleration or otherwise) of the principal of and interest on the Loans and all fees and other amounts from time to time owing to the Lenders by Borrower under this Agreement or under any other Loan Document and by any other Obligor under any of the Loan Documents, in each case strictly in accordance with the terms thereof (such obligations being herein collectively called the "***Guaranteed Obligations***"). The Subsidiary Guarantors hereby further jointly and severally agree that if Borrower shall fail to pay in full when due (whether at stated maturity, by acceleration or otherwise) any of the Guaranteed Obligations, the Subsidiary Guarantors will promptly pay the same, without any demand or notice whatsoever, and that in the case of any extension of time of payment or renewal of any of the Guaranteed Obligations, the same will be promptly paid in full when due (whether at extended maturity, by acceleration or otherwise) in accordance with the terms of such extension or renewal.

13.02 Obligations Unconditional. The obligations of the Subsidiary Guarantors under **Section 13.01** are absolute and unconditional, joint and several, irrespective of the value, genuineness, validity, regularity or enforceability of the obligations of Borrower under this Agreement or any other agreement or instrument referred to herein, or any substitution, release or exchange of any other guarantee of or security for any of the Guaranteed Obligations, and, to the fullest extent permitted by applicable law, irrespective of any other circumstance whatsoever that might

otherwise constitute a legal or equitable discharge or defense of a surety or guarantor, it being the intent of this **Section 13.02** that the obligations of the Subsidiary Guarantors hereunder shall be absolute and unconditional, joint and several, under any and all circumstances. Without limiting the generality of the foregoing, it is agreed that the occurrence of any one or more of the following shall not alter or impair the liability of the Subsidiary Guarantors hereunder, which shall remain absolute and unconditional as described above:

(a) at any time or from time to time, without notice to the Subsidiary Guarantors, the time for any performance of or compliance with any of the Guaranteed Obligations shall be extended, or such performance or compliance shall be waived;

(b) any of the acts mentioned in any of the provisions of this Agreement or any other agreement or instrument referred to herein shall be done or omitted;

(c) the maturity of any of the Guaranteed Obligations shall be accelerated, or any of the Guaranteed Obligations shall be modified, supplemented or amended in any respect, or any right under this Agreement or any other agreement or instrument referred to herein shall be waived or any other guarantee of any of the Guaranteed Obligations or any security therefor shall be released or exchanged in whole or in part or otherwise dealt with; or

(d) any lien or security interest granted to, or in favor of, the Lenders as security for any of the Guaranteed Obligations shall fail to be perfected.

The Subsidiary Guarantors hereby expressly waive to the extent permitted by applicable law diligence, presentment, demand of payment, protest and all notices whatsoever, and any requirement that the Lenders exhaust any right, power or remedy or proceed against Borrower under this Agreement or any other agreement or instrument referred to herein, or against any other Person under any other guarantee of, or security for, any of the Guaranteed Obligations.

13.03 Reinstatement. The obligations of the Subsidiary Guarantors under this **Section 13** shall be automatically reinstated if and to the extent that for any reason any payment by or on behalf of Borrower in respect of the Guaranteed Obligations is rescinded or must be otherwise restored by any holder of any of the Guaranteed Obligations, whether as a result of any proceedings in bankruptcy or reorganization or otherwise, and the Subsidiary Guarantors jointly and severally agree that they will indemnify the Lenders on demand for all reasonable and documented out of pocket costs and expenses (including reasonable and documented fees of counsel) incurred by the Lenders in connection with such rescission or restoration, including any such costs and expenses incurred in defending against any claim alleging that such payment constituted a preference, fraudulent transfer or similar payment under any bankruptcy, insolvency or similar law.

13.04 Subrogation. The Subsidiary Guarantors hereby jointly and severally agree that until the payment and satisfaction in full of all Guaranteed Obligations (other than contingent obligations for which no claim has been made) and the expiration and termination of the Commitment of the Lenders under this Agreement they shall not exercise any right or remedy arising by reason of any performance by them of their guarantee in **Section 13.01**, whether by subrogation or

otherwise, against Borrower or any other guarantor of any of the Guaranteed Obligations or any security for any of the Guaranteed Obligations.

13.05 Remedies. The Subsidiary Guarantors jointly and severally agree that, as between the Subsidiary Guarantors and the Lenders, the obligations of Borrower under this Agreement and under the other Loan Documents may be declared to be forthwith due and payable as provided in **Section 11** (and shall be deemed to have become automatically due and payable in the circumstances provided in **Section 11**) for purposes of **Section 13.01** notwithstanding any stay, injunction or other prohibition preventing such declaration (or such obligations from becoming automatically due and payable) as against Borrower and that, in the event of such declaration (or such obligations being deemed to have become automatically due and payable), such obligations (whether or not due and payable by Borrower) shall forthwith become due and payable by the Subsidiary Guarantors for purposes of **Section 13.01**.

13.06 Instrument for the Payment of Money. Each Subsidiary Guarantor hereby acknowledges that the guarantee in this **Section 13** constitutes an instrument for the payment of money, and consents and agrees that the Lenders, at their sole option, in the event of a dispute by such Subsidiary Guarantor in the payment of any moneys due hereunder, shall have the right to proceed by motion for summary judgment in lieu of complaint pursuant to N.Y. Civ. Prac. L&R § 3213.

13.07 Continuing Guarantee. The guarantee in this **Section 13** is a continuing guarantee, and shall apply to all Guaranteed Obligations whenever arising.

13.08 Rights of Contribution. The Subsidiary Guarantors hereby agree, as between themselves, that if any Subsidiary Guarantor shall become an Excess Funding Guarantor (as defined below) by reason of the payment by such Subsidiary Guarantor of any Guaranteed Obligations, each other Subsidiary Guarantor shall, on demand of such Excess Funding Guarantor (but subject to the next sentence), pay to such Excess Funding Guarantor an amount equal to such Subsidiary Guarantor's *Pro Rata* Share (as defined below and determined, for this purpose, without reference to the properties, debts and liabilities of such Excess Funding Guarantor) of the Excess Payment (as defined below) in respect of such Guaranteed Obligations. The payment obligation of a Subsidiary Guarantor to any Excess Funding Guarantor under this **Section 13.08** shall be subordinate and subject in right of payment to the prior payment in full of the obligations of such Subsidiary Guarantor under the other provisions of this **Section 13** and such Excess Funding Guarantor shall not exercise any right or remedy with respect to such excess until payment and satisfaction in full of all of such obligations.

For purposes of this **Section 13.08**, (i) "***Excess Funding Guarantor***" means, in respect of any Guaranteed Obligations, a Subsidiary Guarantor that has paid an amount in excess of its *Pro Rata* Share of such Guaranteed Obligations, (ii) "***Excess Payment***" means, in respect of any Guaranteed Obligations, the amount paid by an Excess Funding Guarantor in excess of its *Pro Rata* Share of such Guaranteed Obligations and (iii) "***Pro Rata Share***" means, for any Subsidiary Guarantor, the ratio (expressed as a percentage) of (x) the amount by which the aggregate present fair saleable value of all properties of such Subsidiary Guarantor (excluding any shares of stock of any other Subsidiary Guarantor) exceeds the amount of all the debts and liabilities of such Subsidiary Guarantor (including contingent, subordinated, unmatured and

unliquidated liabilities, but excluding the obligations of such Subsidiary Guarantor hereunder and any obligations of any other Subsidiary Guarantor that have been Guaranteed by such Subsidiary Guarantor) to (y) the amount by which the aggregate fair saleable value of all properties of all of the Subsidiary Guarantors exceeds the amount of all the debts and liabilities (including contingent, subordinated, unmatured and unliquidated liabilities, but excluding the obligations of Borrower and the Subsidiary Guarantors hereunder and under the other Loan Documents) of all of the Subsidiary Guarantors, determined (A) with respect to any Subsidiary Guarantor that is a party hereto on the first Borrowing Date, as of such Borrowing Date, and (B) with respect to any other Subsidiary Guarantor, as of the date such Subsidiary Guarantor becomes a Subsidiary Guarantor hereunder.

13.09 General Limitation on Guarantee Obligations. In any action or proceeding involving any provincial, territorial or state corporate law, or any state or federal bankruptcy, insolvency, reorganization or other law affecting the rights of creditors generally, if the obligations of any Subsidiary Guarantor under **Section 13.01** would otherwise, taking into account the provisions of **Section 13.08**, be held or determined to be void, invalid or unenforceable, or subordinated to the claims of any other creditors, on account of the amount of its liability under **Section 13.01**, then, notwithstanding any other provision hereof to the contrary, the amount of such liability shall, without any further action by such Subsidiary Guarantor, the Lenders or any other Person, be automatically limited and reduced to the highest amount that is valid and enforceable and not subordinated to the claims of other creditors as determined in such action or proceeding.

[Signature Pages Follow]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed and delivered as of the day and year first above written.

BORROWER:

SILK ROAD MEDICAL, INC.

By /s/ Erica J. Rogers
Name: Erica J. Rogers
Title: President and Chief Executive Officer

Address for Notices:
735 N. Pastoria Ave.,
Sunnyvale, CA 94085
Attn: Chief Executive Officer
Tel.: 408-585-2101
Fax: 408-720-9013
Email: ERogers@silkroadmed.com

LENDERS:

CRG PARTNERS III L.P.

By CRG PARTNERS III GP L.P.,
its General Partner

By CRG PARTNERS III GP LLC,
its General Partner

By /s/ Nathan Hukill
Name: Nathan Hukill
Title: Authorized Signatory

Address for Notices:

1000 Main Street, Suite 2500
Houston, TX 77002
Attn: General Counsel
Tel.: 713.209.7350
Fax: 713.209.7351
Email: adorenbaum@crglp.com

CRG PARTNERS III – PARALLEL FUND "A" L.P.

By CRG PARTNERS III – PARALLEL FUND "A" GP L.P., its General Partner

By CRG PARTNERS III GP LLC,
its General Partner

By /s/ Nathan Hukill
Name: Nathan Hukill
Title: Authorized Signatory

Address for Notices:

1000 Main Street, Suite 2500
Houston, TX 77002
Attn: General Counsel
Tel.: 713.209.7350
Fax: 713.209.7351
Email: adorenbaum@crglp.com

CRG PARTNERS III – PARALLEL FUND "B" (CAYMAN) L.P.

By CRG PARTNERS III (CAYMAN) GP L.P.,
its General Partner

By CRG PARTNERS III GP LLC,
its General Partner

By /s/ Nathan Hukill
Name: Nathan Hukill
Title: Authorized Signatory

WITNESS: /s/ Nicole Nesson
Name: Nicole Nesson

Address for Notices:

1000 Main Street, Suite 2500
Houston, TX 77002
Attn: General Counsel
Tel.: 713.209.7350
Fax: 713.209.7351
Email: adorenbaum@crglp.com

CRG PARTNERS III (CAYMAN) L.P.

By CRG PARTNERS III (CAYMAN) GP L.P.,
its General Partner

By CRG PARTNERS III GP LLC,
its General Partner

By /s/ Nathan Hukill
Name: Nathan Hukill
Title: Authorized Signatory

WITNESS: /s/ Nicole Nesson
Name: Nicole Nesson

Address for Notices:

1000 Main Street, Suite 2500
Houston, TX 77002
Attn: General Counsel
Tel.: 713.209.7350
Fax: 713.209.7351
Email: adorenbaum@crglp.com

Schedule 1
to Term Loan Agreement

COMMITMENTS

Lender	Commitment	Proportionate Share
CRG Partners III – Parallel Fund "A" L.P.	$873,000.00	**2.91%**
CRG Partners III L.P.	$3,963,000.00	**13.21%**
CRG Partners III (Cayman) L.P.	$8,799,000.00	**29.33%**
CRG Partners III Parallel Fund "B" (Cayman) L.P.	$16,365,000.00	**54.55%**
TOTAL	**$30,000,000.00**	**100%**

Schedule 7.05(b)(i)
to Term Loan Agreement

CERTAIN INTELLECTUAL PROPERTY

Patents

Country	Title	Serial No. (Publ No.)	Date Filed (Publ Date)	Patent No. / Issue date
CN	METHOD AND APPARATUS FOR TREATING A CAROTID ARTERY	200480040717.3 (CN 1905841)	11/22/2004 (1/31/07)	ZL 200480040717.3 10/21/2009
EP	METHOD AND APPARATUS FOR TREATING A CAROTID ARTERY	EP 04811840 (EP1696806)	11/22/04 (9/6/06)	Pat. No. 1696806 8/29/2012
FR	METHOD AND APPARATUS FOR TREATING A CAROTID ARTERY			169806 8/29/2012
DE	METHOD AND APPARATUS FOR TREATING A CAROTID ARTERY			169806 8/29/2012
ES	METHOD AND APPARATUS FOR TREATING A CAROTID ARTERY			169806 8/29/2012
GB	METHOD AND APPARATUS FOR TREATING A CAROTID ARTERY			169806 8/29/2012
US	METHOD AND APPARATUS FOR TREATING A CAROTID ARTERY	10/996,301 (US 2005-0154344)	11/22/2004 (7/14/2005)	Pat. No.: 7,998,104 Issued: 08/06/2011
PCT	METHOD AND APPARATUS FOR TREATING A CAROTID ARTERY	PCT/US04/39187 (WO 2005/051206)	11/22/2004 (06/09/05)	n/a

Country	Title	Serial No. (Publ No.)	Date Filed (Publ Date)	Patent No. / Issue date
US	METHOD AND APPARATUS FOR TREATING A CAROTID ARTERY	12/176,282 (US 2009-0018455)	7/18/2008 (8/23/2011)	Pat. No.: 8,002,728 Issued: 8/23/2011
US	METHOD AND APPARATUS FOR TREATING A CAROTID ARTERY	12/753,027 (US 2010-0191169)	4/1/2010 (7/29/2010)	Pat. No.: 8,343,089 Issued: 1/1/2013
US	METHOD AND APPARATUS FOR TREATING A CAROTID ARTERY	12/753,039 (US 2010-0191170)	4/1/2010 (7/29/2010)	Pat. No 8,414,516 Issued: 4-9-13
US	METHOD AND APPARATUS FOR TREATING A CAROTID ARTERY	12/966,974 (US 2011-0082408)	12/13/2010 (4/07/2011)	Pat. No 8,870,805 Issued: 10-28-14
US	METHOD AND APPARATUS FOR TREATING A CAROTID ARTERY	14/508,354 (US 2015-0025616)	10-7-14 (1-22-15)	
US	METHOD AND APPARATUS FOR TREATING A CAROTID ARTERY	14/622,310 (US 2015-0150562)	2-13-15 (6-4-15)	
US-PROV	METHODS AND APPARATUS FOR CAROTID ANGIOPLASTY AND STENTING USING TRANSCERVICAL OCCLUSION AND PROTECTIVE SHUNTING	60/524,069	11/21/2003	n/a
US-PROV	METHODS AND APPARATUS FOR CAROTID ANGIOPLASTY AND STENTING USING	60/569,843	5/10/2004	n/a

Country	Title	Serial No. (Publ No.)	Date Filed (Publ Date)	Patent No. / Issue date
	TRANSCERVICAL OCCLUSION AND PROTECTIVE SHUNTING			
US-PROV	METHODS AND APPARATUS FOR CAROTID ANGIOPLASTY AND STENTING USING TRANSCERVICAL OCCLUSION AND PROTECTIVE SHUNTING	60/587,067	7/12/2004	n/a
US	ENDOLUMINAL DELIVERY OF ANESTHESIA	11/282,222 (US 2006-0106338)	11/18/2005 (5/18/2006)	Pat. No.: 7,879,011 Issued: 02/01/2011
US	ENDOLUMINAL DELIVERY OF ANESTHESIA	13/017,905 (US 2011-0125131)	1/31/2011 (05/26/2011)	Pat. No. 8,308,709, Issued 11/13/2012
US	ENDOLUMINAL DELIVERY OF ANESTHESIA	13/674,792	11/12/2012	
US-PROV	ADJUNCT METHODS AND APPARATUS FOR CAROTID ANGIOPLASTY AND STENTING	60/629,420	11/18/2004	
US	METHODS AND SYSTEMS FOR ESTABLISHING RETROGRADE CAROTID ARTERIAL BLOOD FLOW	12/176,250 (US 2009-0024072)	7/18/2008 (1/22/2009)	Pat. No. 8,157,760 Issued: 4/17/12

Country	Title	Serial No. (Publ No.)	Date Filed (Publ Date)	Patent No. / Issue date
US	METHODS AND SYSTEMS FOR ESTABLISHING RETROGRADE CAROTID ARTERIAL BLOOD FLOW	12/835,660 (US 2010-0280431)	7/13/2010 (11/4/2010)	Pat. No. 8,784,355 Issued 7-2-14
US	METHODS AND SYSTEMS FOR ESTABLISHING RETROGRADE CAROTID ARTERIAL BLOOD FLOW	13/050,855 (US 2011-0166496)	3/17/2011 (7/7/2011)	Pat. No. 8,740,834 Issued 6-3-14
US	METHODS AND SYSTEMS FOR ESTABLISHING RETROGRADE CAROTID ARTERIAL BLOOD FLOW	13/050,876 (US 2011-0166497)	3/17/2011 (7/7/2011)	9,011,364 4-21-15
US	METHODS AND SYSTEMS FOR ESTABLISHING RETROGRADE CAROTID ARTERIAL BLOOD FLOW	14/475,346 (US2014-0371653)	9-2-14 (12/18/2014)	
PCT	METHODS AND SYSTEMS FOR ESTABLISHING RETROGRADE CAROTID ARTERIAL BLOOD FLOW	PCT/US08/70542 (WO 09/012473)	7/18/2008 (01/22/2009)	n/a
EP	METHODS AND SYSTEMS FOR ESTABLISHING	EP 08782096.5 -2173425	7/18/2008 (11/21/2012)	2173425 11/21/2012

Country	Title	Serial No. (Publ No.)	Date Filed (Publ Date)	Patent No. / Issue date
	RETROGRADE CAROTID ARTERIAL BLOOD FLOW			
FR	METHODS AND SYSTEMS FOR ESTABLISHING RETROGRADE CAROTID ARTERIAL BLOOD FLOW			2173425 11/21/2012
DE	METHODS AND SYSTEMS FOR ESTABLISHING RETROGRADE CAROTID ARTERIAL BLOOD FLOW			2173425 11/21/2012
IT	METHODS AND SYSTEMS FOR ESTABLISHING RETROGRADE CAROTID ARTERIAL BLOOD FLOW			2173425 11/21/2012
GB	METHODS AND SYSTEMS FOR ESTABLISHING RETROGRADE CAROTID ARTERIAL BLOOD FLOW			2173425 11/21/2012
EP	METHODS AND SYSTEMS FOR ESTABLISHING RETROGRADE CAROTID ARTERIAL BLOOD FLOW	EP20120170204 (EP2497520)	07/18/2008 (2012)	
JP	METHODS AND SYSTEMS FOR ESTABLISHING	2010-517195 (2010-533568)	7/18/08	Pat No 5290290

Country	Title	Serial No. (Publ No.)	Date Filed (Publ Date)	Patent No. / Issue date
	RETROGRADE CAROTID ARTERIAL BLOOD FLOW			6-14-13
JP	METHODS AND SYSTEMS FOR ESTABLISHING RETROGRADE CAROTID ARTERIAL BLOOD FLOW	2013-118679	7/18/08	Pat. No 5693661
US-PROV	METHODS AND SYSTEMS FOR ESTABLISHING RETROGRADE CAROTID ARTERIAL BLOOD FLOW	60/950,384	7/18/2007	
US-PROV	METHODS AND SYSTEMS FOR ESTABLISHING RETROGRADE CAROTID ARTERIAL BLOOD FLOW	61/026,308	2/5/2008	
US-PROV	INTERVENTIONAL CATHETER SYSTEM AND METHODS	61/094,797	09/05/2008	
US-Prov	SUTURE-BASED BLOOD VESSEL CLOSURE DEVICE	61/088,680	8/13/2008	
US-Prov	SUTURE-BASED BLOOD VESSEL CLOSURE DEVICE	61/097,812	9/17/2008	
US-Prov	SUTURE DELIVERY DEVICE	61/138,403	12/17/2008	
US-Prov	SUTURE DELIVERY DEVICE	61/162,173	3/20/2009	

Country	Title	Serial No. (Publ No.)	Date Filed (Publ Date)	Patent No. / Issue date
US-Prov	SUTURE DELIVERY DEVICE	61/165,392	3/31/2009	
US	SUTURE DELIVERY DEVICE	12/540,341 (US 2010-0042118)	8/12/2009 (02/18/2010)	9,011,467 4-24-15
PCT	SUTURE DELIVERY DEVICE	PCT/US09/53621 (WO 2010/019719)	8/12/2009 (02/18/2010)	
EP	METHODS AND DEVICES FOR CLOSURE OF VASCULAR WOUNDS	09791441.0 (2323566)	8/12/2009 (5/25/2011)	
US	SUTURE DELIVERY DEVICE	12/633,730 (US 2010-0185216)	12/8/2009 (07/22/2010)	Pat. No. 8,574,245 Issued 11-5-13
US	SUTURE DELIVERY DEVICE	14/071,485 US 2014-0058414	11-4-13 (2-27-14)	
US-Prov	VESSEL CLOSURE CLIP DEVICE	61/156,367	2/27/2009	
US-Prov	VESSEL CLOSURE CLIP DEVICE	61/181,588	5/27/09	
US	VESSEL CLOSURE CLIP DEVICE	12/713,630 (US 2010-0228269)	2/26/10 (09/09/2010)	
US	INTERVENTIONAL CATHETER SYSTEM AND METHODS	12/366,287 (US 2009-0254166)	2/5/2009 (10/08/2009)	
PCT	INTERVENTIONAL CATHETER SYSTEM AND METHODS	PCT/US09/33208 (WO 09/100210)	2/5/2009 (08/13/2009)	
EP	INTERVENTIONAL	09707469.4	2/5/2009	

Country	Title	Serial No. (Publ No.)	Date Filed (Publ Date)	Patent No. / Issue date
	CATHETER SYSTEM AND METHODS	(2249750)	(11/17/2010)	
US-Prov	SYSTEM AND METHODS FOR CONTROLLING RETROGRADE CAROTID ARTERIAL BLOOD FLOW	61/183,914	6/03/2009	
US	SYSTEM AND METHODS FOR CONTROLLING RETROGRADE CAROTID ARTERIAL BLOOD FLOW	12/793,543 (US 2011-0004147)	6/3/2010 (01/06/2011)	Pat. No. 8,545,432 Issued 10-1-13
US	SYSTEM AND METHODS FOR CONTROLLING RETROGRADE CAROTID ARTERIAL BLOOD FLOW	14/042,503 (US2014-0031682)	9-30-13 01-30-14	Pat. No. 9,138,527 Issued 9-22-15
US-Prov	SYSTEMS AND METHODS FOR TRANSCERVICAL AORTIC VALVE TREATMENT	61/308,606	2/26/2010	n/a
US	SYSTEMS AND METHODS FOR TRANSCERVICAL AORTIC VALVE TREATMENT	13/034513 (US 2011-0213459)	2/24/2011 (9/1/2011)	Pat. No. 8,545,552 Issued 10-1-13
US	SYSTEMS AND METHODS FOR TRANSCERVICAL AORTIC VALVE TREATMENT	14/042,520 (US2014-0031925)	9-30-13 (1-30-14)	
US	SYSTEMS AND METHODS FOR	12/834,869	07/12/2010	Pat. No. 8,858,490

Country	Title	Serial No. (Publ No.)	Date Filed (Publ Date)	Patent No. / Issue date
	TREATING A CAROTID ARTERY	(US 2011-0034986)	(02/10/2011)	Issued 10-14-14
US	SYSTEMS AND METHODS FOR TREATING A CAROTID ARTERY	14/511,830	10-10-14	
US-Prov	SYSTEMS AND METHODS FOR TREATING A CAROTID ARTERY	61/373,240	8/12/2010	
US	SYSTEMS AND METHODS FOR TREATING A CAROTID ARTERY	13/816,670 2013-0197621	4-11-13 (8-1-13)	
US-Prov	Suture Delivery Device	61/681,584	08/09/12	
US	Suture Delivery Device	13/961,746 US2014-0046346	8-7-13 2-13-14	
US-Prov	Endoluminal Delivery Of Either Fluid Or Energy For Denervation	61/725,871	11/13/2012	
US	Endoluminal Delivery Of Either Fluid Or Energy For Denervation	14/078,149 2014-0135661	11-12-13 5-15-14	
US	Methods And Systems For Establishing Retrograde Carotid Arterial Blood Flow	14/227,585 2014-0296769	3-27-14 10-2-14	
PCT	Methods And Systems For Establishing Retrograde Carotid Arterial Blood Flow	PCTUS2014032060	3-27-14	
US	System and Method For Assisted Manual Compression	14/476,651 US20150080942	9/3/14 3/19/15	

Country	Title	Serial No. (Publ No.)	Date Filed (Publ Date)	Patent No. / Issue date
	Of Blood Vessel			
US	Vessel Access and Closure Assist System And Method	14/710,400	5/12/15	
PCT	Vessel Access and Closure Assist System And Method	PCT/US2015/030375	5/12/15	
US-Prov	Systems and Methods For Transcatheter Aortic Valve Treatment	62/155,384	4-30-15	
US-Prov	Systems and Methods For Transcatheter Aortic Valve Treatment	62/210,919	8-27-15	
US-Prov	Suture Delivery Device	62/120,022	2-24-15	
US-Prov	Methods and Systems For Establishing Retrograde Carotid Arterial Blood Flow	62/145,809	4-10-15	

Trademarks

COUNTRY	TRADEMARK	STATUS	APP NO	APP DATE	REG NO	REG DATE
US	ENROUTE	Registered	86292751	27-May-14	4666997	6-Jan-15
US	KOBI	Registered	85499238	19-Dec-11	4471379	21-Jan-14
US	MICHI	Registered	85213282	7-Jan-11	4276297	15-Jan-13
US	SILKROAD MEDICAL	Registered	85567851	13-Mar-12	4251626	27-Nov-12
US	SILKROAD	Registered	85005119	2-Apr-10	4407336	24-Sep-13
US	SILKROAD MEDICAL	Registered	85952497	6-Jun-13	4610772	23-Sep-14
Japan	ENROUTE	Registered	201471535	26-Aug-14	5712774	24-Oct-14

CTM	ENROUTE	Registered	13200563	26-Aug-14		20-Jan-15
CTM	SILK ROAD	Registered	9420589	4-Oct-10	9420589	11-Mar-11
	Silk Road Medical, Inc.	Trade Name				

Copyrights

None.

Schedule 7.05(b)(ii)
to Term Loan Agreement

INTELLECTUAL PROPERTY EXCEPTIONS

Intellectual Property transferred to NeuroCo., Inc., a Delaware corporation:

NEURO-SPECIFIC PATENTS

Patent Family	Issued Patents	Pending U.S. Applications	Pending non-U.S. Applications
Neuro procedure, devices		12/686,202 62/076,944	PCT-US10-020792
Stroke Procedure, devices		12/645,179 12/966,948 13/566,451 13/921,165 62/083,128 14/576,953	EU applications EP09803966.2 EP12821423.6 JP Applications 2011-543654 2014-521462 PCT-US2014-072566 PCT/US2014/071676
Aspiration Device		14/221,917 14/569,365	PCT-US2014-031491 PCT/US2015/042180
Flexible Catheters, TC catheters	9,126,018	62/075,101 14/537,316	PCT-US2015-047717

GENERAL APPLICATION PATENTS

Patent Family	**Issued Patents**	**Pending US Applications**	**Pending OUS Applications**
Chang I	7,988,104 8,002,728 8,343,089 8,414,516 8,870,805 EP 1696806 CN 100534392C	14/508,354	EU Divisional EP10009848
Criado/TC-CAS Device	8,157,760 8,784,355 8,740,834 EP 2173425 JP 5290290	13/050,876 14/475,346 14/227,585	EU Divisional 12170204.7 JP Divisional 2013-118679
TC Access - general		14/537,316 (T1)	

Spin-off of shares of NeuroCo, Inc. to stockholders of Silk Road Medical, Inc. on December 31, 2014.

Schedule 7.05(c)
to Term Loan Agreement

MATERIAL INTELLECTUAL PROPERTY

All Intellectual Property is material. Please see **Schedule 7.05(b)(i)**.

Schedule 7.06
to Term Loan Agreement

CERTAIN LITIGATION

None.

Schedule 7.08
to Term Loan Agreement

TAXES

Hawaii Use Tax of $1,708 for the sale of products to a customer located in Hawaii; Borrower is in process of registering with Hawaii's tax department to pay the sales tax.

Schedule 7.12
to Term Loan Agreement

INFORMATION REGARDING SUBSIDIARIES

None.

Schedule 7.13(a)
to Term Loan Agreement

EXISTING INDEBTEDNESS OF BORROWER AND ITS SUBSIDIARIES

None.

Schedule 7.13(b)
to Term Loan Agreement

LIENS GRANTED BY THE OBLIGORS

SVB restricted account holding $100,000 in cash collateral to secure obligations in respect of corporate credit cards provided by Silicon Valley Bank.

Lien over copier equipment in favor of U.S. Bank Equipment Finance, as evidenced by the UCC- 1 financing statement numbered 2013 1953372 and dated as of May 22, 2013.

Schedule 7.14
to Term Loan Agreement

MATERIAL AGREEMENTS OF OBLIGORS

Other Party to Contract	Title/Date of Contract
Cordis Corporation	License Agreement December 17, 2010
Cordis Corporation	Supply Agreement December 17, 2010, as amended by the Amendment dated October 21, 2011, the Second Amendment dated as of July 12, 2012 and the Third Amendment dated as of April 19, 2013.
HealthLink EU Services, B.V.	Agreement to Act as General Fiscal Representative for VAT Purposes March 1, 2014
HealthLink Europe, B.V.	European Logistics and Customer Service Agreement May 1, 2014
Med-Venture Investments, LLC	Exclusive License Agreement December 7, 2009
North Pastoria Partners, LP	Lease Agreement (for 735 N. Pastoria Ave.) June 16, 2008, as amended by Amendment No. 1 on July 19, 2010, Amendment No. 2 on November 15, 2011 and Amendment No. 3 on October 24, 2014
North Pastoria Partners, LP	Lease Agreement (for 733 N. Pastoria Ave.) November 15, 2011 as amended by Amendment No. 1 on October 24, 2014

Schedule 7.15
to Term Loan Agreement

RESTRICTIVE AGREEMENTS

Fifth Amended and Restated Certificate of Incorporation of Silk Road Medical, Inc., dated as of August 5th, 2014, as amended by that certain Amendment dated as of October 13, 2015.

License Agreement, dated as of December 17, 2010, between Silk Road Medical, Inc. and Cordis Corporation.

Exclusive License Agreement, dated as of December 7, 2009 between Silk Road Medical, Inc. and Med-Venture Investments, LLC.

Lease Agreement (for 735 N. Pastoria Ave.), dated as of June 16, 2008, between Silk Road Medical, Inc. and North Pastoria Partners, as amended by Amendment No. 1 on July 19, 2010, as amended by Amendment No. 2 on November 15, 2011, as amended by Amendment No. 3 on October 24, 2014.

Lease Agreement (for 733 N. Pastoria Ave.), dated as of November 15, 2011, between Silk Road Medical, Inc. and North Pastoria Partners, as amended by Amendment No. 1 on October 24, 2014.

Schedule 7.16
to Term Loan Agreement

REAL PROPERTY OWNED OR LEASED BY BORROWER OR ANY SUBSIDARY

North Pastoria Partners	Lease Agreement (for 735 N. Pastoria Ave.) June 16, 2008, as amended by Amendment No. 1 on July 19, 2010, as amended by Amendment No. 2 on November 15, 2011, as amended by Amendment No. 3 on October 24, 2014
North Pastoria Partners	Lease Agreement (for 733 N. Pastoria Ave.) November 15, 2011 as amended by Amendment No. 1 on October 24, 2014.

Schedule 7.17
to Term Loan Agreement

PENSION MATTERS

None.

Schedule 9.05
to Term Loan Agreement

EXISTING INVESTMENTS

Promissory Note, dated as of December 31, 2014 issued by NeuroCo, Inc. to Silk Road Medical, Inc. As of September 30, 2015, $1,683,736 principal amount, plus accrued interest, is outstanding under the Promissory Note.

Schedule 9.10
to Term Loan Agreement

TRANSACTIONS WITH AFFILIATES

Promissory Note, dated as of December 31, 2014 issued by NeuroCo, Inc. to Silk Road Medical, Inc. (the “NeuroCo Note”).

Assignment and License Agreement, dated of December 31, 2014 between Silk Road Medical, Inc. and NeuroCo, Inc., as amended by Amendment No. 1 dated as of October 7, 2015.

Various patent prosecution services rendered and to be rendered by Silk Road Medical, Inc. on behalf of NeuroCo, Inc. Silk Road Medical, Inc. will increase the amounts payable under the NeuroCo Note as compensation for the rendering of such services.

Various severance payments to employees of NeuroCo, Inc. affected by the reduction in force on September 11, 2015. Silk Road Medical, Inc. will increase the amounts payable under the NeuroCo Note as compensation for the rendering of such services.

Registration Rights Agreement, dated April 7, 2011, by and among Silk Road Medical, Inc. and the investors party thereto.

Amended and Restated Stockholders Agreement, dated as of August 7, 2014, by and among Silk Road Medical, Inc., and the investors and individuals from time to time party thereto.

Schedule 9.14
to Term Loan Agreement

PERMITTED SALES AND LEASEBACKS

None.

FORM OF GUARANTEE ASSUMPTION AGREEMENT

GUARANTEE ASSUMPTION AGREEMENT dated as of [DATE] by [NAME OF ADDITIONAL SUBSIDIARY GUARANTOR], a [corporation][limited liability company] (the "Additional Subsidiary Guarantor"), in favor of CRG Partners III L.P., CRG Partners III – Parallel Fund "A" L.P., CRG Partners III – Parallel Fund "B" (Cayman) L.P., CRG Partners III (Cayman) L.P., as Lenders (the "Lenders") under that certain Term Loan Agreement, dated as of [INSERT DATE] (as amended, restated, supplemented or otherwise modified, renewed, refinanced or replaced, the "Loan Agreement"), among Silk Road Medical, Inc., a Delaware corporation ("Borrower"), the lenders from time to time party thereto and the Subsidiary Guarantors from time to time party thereto

Pursuant to **Section 8.12(a)** of the Loan Agreement, the Additional Subsidiary Guarantor hereby agrees to become a "Subsidiary Guarantor" for all purposes of the Loan Agreement, and a "Grantor" for all purposes of the Security Agreement. Without limiting the foregoing, the Additional Subsidiary Guarantor hereby, (i) jointly and severally with the other Subsidiary Guarantors, guarantees to the Lenders and its successors and assigns the prompt payment in full when due (whether at stated maturity, by acceleration or otherwise) of all Guaranteed Obligations (as defined in **Section 13.01** of the Loan Agreement) in the same manner and to the same extent as is provided in **Section 13** of the Loan Agreement and (ii) grants a security interest in the Collateral (other than Excluded Assets) owned by such Additional Subsidiary Guarantor pursuant to, and upon the terms and conditions set forth in, the Security Agreement. In addition, as of the date hereof, the Additional Subsidiary Guarantor hereby makes the representations and warranties set forth in **Sections 7.01**, **7.02**, **7.03**, **7.05(a)**, **7.06**, **7.07**, **7.08, 7.10(a)** and **7.18** of the Loan Agreement, and in **Section 2** of the Security Agreement, with respect to itself and its obligations under this Agreement and the other Loan Documents, as if each reference in such Sections to the Loan Documents included reference to this Agreement, such representations and warranties to be made as of the date hereof.

The Additional Subsidiary Guarantor hereby instructs its counsel to deliver the opinions referred to in **Section 8.12(a)** of the Loan Agreement to the Lenders.

IN WITNESS WHEREOF, the Additional Subsidiary Guarantor has caused this Guarantee Assumption Agreement to be duly executed and delivered as of the day and year first above written.

[ADDITIONAL SUBSIDIARY GUARANTOR]

By _____
Name:
Title:

Exhibit B
to Term Loan Agreement

FORM OF NOTICE OF BORROWING

Date : [_____]

To: Capital Royalty Partners II L.P. and the other Lenders 1000 Main Street, Suite 2500
Houston, TX 77002
Attn: General Counsel

Re: Borrowing under Term Loan Agreement

Ladies and Gentlemen:

The undersigned, Silk Road Medical, Inc., a Delaware corporation ("***Borrower***"), refers to the Term Loan Agreement, dated as of October , 2015 (as the same may be amended, restated, supplemented or otherwise modified from time to time, the "***Loan Agreement***"), among Borrower, CRG Partners III L.P., CRG Partners III – Parallel Fund "A" L.P., CRG Partners III – Parallel Fund "B" (Cayman) L.P., CRG Partners III (Cayman) L.P., and other parties from time to time party thereto as lenders ("***Lenders***"), and the subsidiary guarantors from time to time party thereto. The terms defined in the Loan Agreement are herein used as therein defined.

Borrower hereby gives you notice irrevocably, pursuant to **Section 2.02** of the Loan Agreement, of the borrowing of the Loan specified herein:

1. The proposed Borrowing Date is [_____].

2. The amount of the proposed Borrowing is $[_____].

3. The payment instructions with respect to the funds to be made available to Borrower are as follows:

Bank name: [_____]
Bank Address: [_____]
Routing Number: [_____]
Account Number: [_____]
Swift Code: [_____]

Borrower hereby certifies that the following statements are true on the date hereof, and will be true on the date of the proposed borrowing of the Loan, before and after giving effect thereto and to the application of the proceeds therefrom:

a) the representations and warranties made by Borrower in **Section 7** of the Loan Agreement are (A) in the case of representations qualified by "materiality," "Material Adverse Effect" or similar language, true and correct in all respects and (B) in the case of all other

representations and warranties, true and correct in all material respects on and as of the Borrowing Date, and immediately after giving effect to the application of the proceeds of the Borrowing, with the same force and effect as if made on and as of such date (except that the representation regarding representations and warranties that refer to a specific earlier date are true and correct on the basis set forth above as of such earlier date);

b) on and as of the Borrowing Date, there shall have occurred no Material Adverse Change since December 31, 2014; and

c) no Default exists or would result from such proposed Borrowing or the application of the proceeds thereof.

IN WITNESS WHEREOF, Borrower has caused this Notice of Borrowing to be duly executed and delivered as of the day and year first above written.

BORROWER:

SILK ROAD MEDICAL, INC.

By _____

Name:

Title:

Exhibit C-1
to Term Loan Agreement

FORM OF TERM LOAN NOTE

[DATE]

U.S. $[_____]

FOR VALUE RECEIVED, the undersigned, Silk Road Medical, Inc., a Delaware corporation ("***Borrower***"), hereby promises to pay to [CRG Partners III L.P. / CRG Partners III – Parallel Fund "A" L.P. / CRG Partners III – Parallel Fund "B" (Cayman) L.P. / CRG Partners III (Cayman) L.P.] or its assigns (the "***Lender***") at the Lender's principal office in [_____], in immediately available funds, the aggregate principal sum set forth above, or, if less, the aggregate unpaid principal amount of all Loans made by the Lender pursuant to **Section 2.01** of the Term Loan Agreement, dated as of [INSERT DATE] (as amended, restated, supplemented or otherwise modified, renewed, refinanced or replaced, the "***Loan Agreement***"), among Borrower, the Lender, the other lenders from time to time party thereto and the Subsidiary Guarantors from time to time party thereto, on the date or dates specified in the Loan Agreement, together with interest on the principal amount of such Loans from time to time outstanding thereunder at the rates, and payable in the manner and on the dates, specified in the Loan Agreement.

This Note is a Note issued pursuant to the terms of **Section 2.04** of the Loan Agreement, and this Note and the holder hereof are entitled to all the benefits and security provided for thereby or referred to therein, to which Loan Agreement reference is hereby made for a statement thereof. All defined terms used in this Note, except terms otherwise defined herein, shall have the same meaning as in the Loan Agreement.

THIS NOTE AND THE RIGHTS AND OBLIGATIONS OF THE PARTIES HEREUNDER SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAW OF THE STATE OF NEW YORK, WITHOUT REGARD TO PRINCIPLES OF CONFLICTS OF LAWS THAT WOULD RESULT IN THE APPLICATION OF THE LAWS OF ANY OTHER JURISDICTION; *PROVIDED THAT* SECTION 5-1401 OF THE NEW YORK GENERAL OBLIGATIONS LAW SHALL APPLY.

FOR PURPOSES OF SECTIONS 1272, 1273 AND 1275 OF THE INTERNAL REVENUE CODE OF 1986, AS AMENDED, AND THE RULES AND REGULATIONS THEREUNDER, THIS NOTE IS BEING ISSUED WITH ORIGINAL ISSUE DISCOUNT; PLEASE CONTACT [NAME OF CFO OR TAX DIRECTOR OF ISSUER], [TITLE], [ADDRESS], TELEPHONE: [TEL #] TO OBTAIN INFORMATION REGARDING THE ISSUE PRICE, THE AMOUNT OF ORIGINAL ISSUE DISCOUNT AND THE YIELD TO MATURITY.

Borrower hereby waives, to the extent permitted by applicable law, demand, presentment, protest or notice of any kind hereunder, other than notices provided for in the Loan Documents. The non-exercise by the holder hereof of any of its rights hereunder in any particular instance shall not constitute a waiver thereof in such particular or any subsequent instance.

THIS NOTE MAY NOT BE TRANSFERRED EXCEPT IN COMPLIANCE WITH THE TERMS OF THE LOAN AGREEMENT.

SILK ROAD MEDICAL, INC.

By _____

Name:

Title:

Exhibit C-2

Exhibit C-2
to Term Loan Agreement

FORM OF PIK LOAN NOTE

U.S. $[_____] [DATE]

FOR VALUE RECEIVED, the undersigned, Silk Road Medical, Inc. ("***Borrower***"), hereby promises to pay to [CRG Partners III L.P. / CRG Partners III – Parallel Fund "A" L.P. / CRG Partners III – Parallel Fund "B" (Cayman) L.P. / CRG Partners III (Cayman) L.P.] or its assigns (the "***Lender***") at the Lender's principal office in [_____], in immediately available funds, the aggregate principal sum set forth above, or, if greater or less, the aggregate unpaid principal amount of all PIK Loans made by the Lender pursuant to **Section 3.02(d)** of the Term Loan Agreement, dated as of October 13, 2015 (as amended, restated, supplemented or otherwise modified, renewed, refinanced or replaced, the "***Loan Agreement***"), among Borrower, the Lender, the other lenders from time to time party thereto and the Subsidiary Guarantors party from time to time thereto, on the date or dates specified in the Loan Agreement, together with interest on the principal amount of such PIK Loans from time to time outstanding thereunder at the rates, and payable in the manner and on the dates, specified in the Loan Agreement.

This Note is a Note issued pursuant to the terms of **Section 3.02(d)** of the Loan Agreement, and this Note and the holder hereof are entitled to all the benefits and security provided for thereby or referred to therein, to which Loan Agreement reference is hereby made for a statement thereof. All defined terms used in this Note, except terms otherwise defined herein, shall have the same meaning as in the Loan Agreement.

The Lender may supplement this Note by attaching to this Note a schedule (the "***Note Schedule***") to evidence additional PIK Loans made by the Lender to Borrower following the date first above written. The Lender may endorse thereon the date such additional PIK Loan is made and the principal amount of such additional PIK Loan when made. Such Note Schedule shall form part of this Note and all references to this Note shall mean this Note, as supplemented by such Note Schedule.

THIS NOTE AND THE RIGHTS AND OBLIGATIONS OF THE PARTIES HEREUNDER SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAW OF THE STATE OF NEW YORK, WITHOUT REGARD TO PRINCIPLES OF CONFLICTS OF LAWS THAT WOULD RESULT IN THE APPLICATION OF THE LAWS OF ANY OTHER JURISDICTION; *PROVIDED THAT* SECTION 5-1401 OF THE NEW YORK GENERAL OBLIGATIONS LAW SHALL APPLY.

FOR PURPOSES OF SECTIONS 1272, 1273 AND 1275 OF THE INTERNAL REVENUE CODE OF 1986, AS AMENDED, AND THE RULES AND REGULATIONS THEREUNDER, THIS NOTE IS BEING ISSUED WITH ORIGINAL ISSUE DISCOUNT; PLEASE CONTACT [NAME OF CFO OR TAX DIRECTOR OF ISSUER], [TITLE], [ADDRESS], TELEPHONE: [TEL #] TO OBTAIN INFORMATION REGARDING THE ISSUE PRICE, THE AMOUNT OF ORIGINAL ISSUE DISCOUNT AND THE YIELD TO MATURITY.

Borrower hereby waives, to the extent permitted by applicable law, demand, presentment, protest or notice of any kind hereunder, other than notices provided for in the Loan Documents. The non-exercise by the holder hereof of any of its rights hereunder in any particular instance shall not constitute a waiver thereof in such particular or any subsequent instance.

THIS NOTE MAY NOT BE TRANSFERRED EXCEPT IN COMPLIANCE WITH THE TERMS OF THE LOAN AGREEMENT.

SILK ROAD MEDICAL, INC.

By _____

Name:

Title:

PIK NOTE SCHEDULE

This Note Schedule supplements that certain Note issued by Borrower to [CRG Partners III L.P. / CRG Partners III – Parallel Fund "A" L.P. / CRG Partners III – Parallel Fund "B" (Cayman) L.P. / CRG Partners III (Cayman) L.P.][1] or its assigns on [*DATE*].

Date of additional PIK Loan	**Amount of additional PIK Loan made**	**Notation made by[2]**

[1] Delete as appropriate for each Note.

[2] Insert name of party making notation (e.g. Borrower or Lender).

Exhibit D-1
to Term Loan Agreement

FORM OF U.S. TAX COMPLIANCE CERTIFICATE
(For Foreign Lenders That Are Partnerships For U.S. Federal Income Tax Purposes)

Reference is made to the Term Loan Agreement, dated as of [INSERT DATE] (as the same may be amended, restated, supplemented or otherwise modified from time to time, the "***Loan Agreement***"), among Silk Road Medical, Inc., a Delaware corporation ("***Borrower***"), CRG Partners III L.P., CRG Partners III – Parallel Fund "A" L.P., CRG Partners III – Parallel Fund "B" (Cayman) L.P., CRG Partners III (Cayman) L.P., and other parties from time to time party thereto as lenders ("***Lenders***"), and the subsidiary guarantors from time to time party thereto. [___] (the "***Foreign Lender***") is providing this certificate pursuant to **Section 5.03(e)(ii)(B)** of the Loan Agreement. The Foreign Lender hereby represents and warrants that:

1. The Foreign Lender is the sole record owner of the Loans as well as any obligations evidenced by any Note(s) in respect of which it is providing this certificate;

2. The Foreign Lender or its direct or indirect partners/members are the sole beneficial owners of the Loans as well as any obligations evidenced by any Note(s) in respect of which it is providing this certificate;

3. Neither the Foreign Lender nor its direct or indirect partners/members is a "bank" for purposes of Section 881(c)(3)(A) of the Internal Revenue Code of 1986, as amended (the "***Code***"). In this regard, the Foreign Lender further represents and warrants that:

(a) neither the Foreign Lender nor its direct or indirect partners/members is subject to regulatory or other legal requirements as a bank in any jurisdiction; and

(b) neither the Foreign Lender nor its direct or indirect partners/members has been treated as a bank for purposes of any tax, securities law or other filing or submission made to any Governmental Authority, any application made to a rating agency or qualification for any exemption from tax, securities law or other legal requirements;

3. Neither the Foreign Lender nor its direct or indirect partners/members is a 10- percent shareholder of Borrower within the meaning of Section 881(c)(3)(B) of the Code; and

4. Neither the Foreign Lender nor its direct or indirect partners/members is a controlled foreign corporation receiving interest from a related person within the meaning of Section 881(c)(3)(C) of the Code.

[Signature follows]

IN WITNESS WHEREOF, the undersigned has caused this certificate to be duly executed and delivered as of the date indicated below.

[NAME OF NON-U.S. LENDER]

By _____

Name:

Title:

Date: _____

Exhibit D-2
to Term Loan Agreement

FORM OF U.S. TAX COMPLIANCE CERTIFICATE
(For Foreign Lenders That Are Not Partnerships For U.S. Federal Income Tax Purposes)

Reference is made to the Term Loan Agreement dated as of [INSERT DATE] (as the same may be amended, restated, supplemented or otherwise modified from time to time, the "***Loan Agreement***"), among Silk Road Medical, Inc., a Delaware corporation ("***Borrower***"), CRG Partners III L.P., CRG Partners III – Parallel Fund "A" L.P., CRG Partners III – Parallel Fund "B" (Cayman) L.P., CRG Partners III (Cayman) L.P., and other parties from time to time party thereto as lenders ("***Lenders***"), and the subsidiary guarantors from time to time party thereto. [__] (the "***Foreign Lender***") is providing this certificate pursuant to **Section 5.03(e)(ii)(B)** of the Loan Agreement. The Foreign Lender hereby represents and warrants that:

1. The Foreign Lender is the sole record and beneficial owner of the Loans as well as any obligations evidenced by any Note(s) in respect of which it is providing this certificate;

2. The Foreign Lender is not a "bank" for purposes of Section 881(c)(3)(A) of the Internal Revenue Code of 1986, as amended (the "***Code***"). In this regard, the Foreign Lender further represents and warrants that:

(a) the Foreign Lender is not subject to regulatory or other legal requirements as a bank in any jurisdiction; and

(b) the Foreign Lender has not been treated as a bank for purposes of any tax, securities law or other filing or submission made to any Governmental Authority, any application made to a rating agency or qualification for any exemption from tax, securities law or other legal requirements;

3. The Foreign Lender is not a 10-percent shareholder of Borrower within the meaning of Section 871(h)(3)(B) of the Code; and

4. The Foreign Lender is not a controlled foreign corporation receiving interest from a related person within the meaning of Section 881(c)(3)(C) of the Code.

[Signature follows]

IN WITNESS WHEREOF, the undersigned has caused this certificate to be duly executed and delivered as of the date indicated below.

[NAME OF NON-U.S. LENDER]

By _____
Name:
Title:

Date: _____

Exhibit E
to Term Loan Agreement

FORM OF COMPLIANCE CERTIFICATE

[DATE]

This certificate is delivered pursuant to **Section 8.01(d)** of the Term Loan Agreement, dated as of October 13, 2015 (as the same may be amended, restated, supplemented or otherwise modified from time to time, the "***Loan Agreement***"), among Silk Road Medical, Inc., a Delaware corporation ("***Borrower***"), CRG Partners III L.P., CRG Partners III – Parallel Fund "A" L.P., CRG Partners III – Parallel Fund "B" (Cayman) L.P., CRG Partners III (Cayman) L.P., and other parties from time to time party thereto as lenders ("***Lenders***"), and the subsidiary guarantors from time to time party thereto. Capitalized terms used herein and not otherwise defined herein are used herein as defined in the Loan Agreement.

The undersigned, a duly authorized Responsible Officer of Borrower having the name and title set forth below under his signature, hereby certifies, on behalf of Borrower for the benefit of the Secured Parties and pursuant to **Section 8.01(d)** of the Loan Agreement that such Responsible Officer of Borrower is familiar with the Loan Agreement and that, in accordance with each of the following sections of the Loan Agreement, each of the following is true on the date hereof, both before and after giving effect to any Loan to be made on or before the date hereof:

In accordance with Section **8.01**[**(a)/(b)**] of the Loan Agreement, attached hereto as **Annex A** are the financial statements for the [fiscal quarter/fiscal year] ended [___] required to be delivered pursuant to **Section 8.01**[**(a)/(b)**] of the Loan Agreement. Such financial statements fairly present in all material respects the consolidated financial position, results of operations and cash flow of Borrower and its Subsidiaries as at the dates indicated therein and for the periods indicated therein in accordance with GAAP [(subject to the absence of footnote disclosure and normal year-end audit adjustments)][3] [without qualification as to the scope of the audit. The examination by such auditors in connection with such financial statements has been made in accordance with the standards of the United States' Auditing Standards Board (or any successor entity).][4]

Attached hereto as **Annex B** are the calculations used to determine compliance with each financial covenant contained in **Section 10** of the Loan Agreement.

No Default or Event of Default is continuing as of the date hereof[, except as provided for on **Annex C** attached hereto, with respect to each of which Borrower proposes to take the actions set forth on **Annex C**].

IN WITNESS WHEREOF, the undersigned has executed this certificate on the date first written above.

---

[3] Insert language in brackets only for quarterly certifications.
[4] Insert language in brackets only for annual certifications.

SILK ROAD MEDICAL, INC.

By _____

Name:

Title:

Exhibit E-2

FINANCIAL STATEMENTS

[see attached]

Exhibit E-3

CALCULATIONS OF FINANCIAL COVENANT COMPLIANCE

I.	**Section 10.01: Minimum Liquidity**	
A.	Amount of unencumbered (other than Liens securing the Obligations and Liens permitted pursuant to **Section 9.02(c)** and **Section 9.02(j)**, provided that with respect to cash subject to a Permitted Priority Lien in connection with Permitted Priority Debt, there is no default under the documentation governing the Permitted Priority Debt) cash and Permitted Cash Equivalent Investments (which for greater certainty shall not include any undrawn credit lines), in each case, to the extent held in an account over which the Lenders have (or the Control Agent on behalf of the Lenders has) a first priority perfected security interest:	$_____
B.	The greater of:	$_____
	(1) $3,000,000 and	
	(2) to the extent Borrower has incurred Permitted Priority Debt, the minimum cash balance required of Borrower by Borrower's Permitted Priority Debt creditors under the agreement governing such Permitted Priority Debt	
	Is Line IA equal to or greater than Line IB?:	*Yes: In compliance; No: Not in compliance*
II.	**Section 10.02(a)-(e): Minimum Revenue—Subsequent Periods**	
A.	Revenues during the twelve month period beginning on January 1, 2015	$_____
	[Is line II.A equal to or greater than $0]?	*Yes: In compliance; No: Not in compliance]*[5]
B.	Revenues during the twelve month period beginning on January 1, 2016	$_____
	[Is line II.B equal to or greater than $1,000,000]?	*Yes: In compliance; No: Not in compliance]*[6]

[5] Include bracketed entry only on the Compliance Certificate to be delivered within 90 days of the end of 2015 pursuant to Section 8.01(b) of the Loan Agreement.

[6] Include bracketed entry only on the Compliance Certificate to be delivered within 90 days of the end of 2016 pursuant to Section 8.01(b) of the Loan Agreement.

C.	Revenues during the twelve month period beginning on January 1, 2017	$_____
	[Is line II.C equal to or greater than $5,000,000]?	*Yes: In compliance;* *No: Not in compliance]*[7]
D.	Revenues during the twelve month period beginning on January 1, 2018	$_____
	[Is line II.D equal to or greater than $15,000,000]?	*Yes: In compliance;* *No: Not in compliance]*[8]
E.	Revenues during the twelve month period beginning on January 1, 2019	
	[Is line II.E equal to or greater than $30,000,000]?	*Yes: In compliance;* *No: Not in compliance]*[9]
F.	Revenues during the twelve month period beginning on January 1, 2020	
	[Is line II.F equal to or greater than $40,000,000]?	*Yes: In compliance;* *No: Not in compliance]*[10]

[7] Include bracketed entry only on the Compliance Certificate to be delivered within 90 days of the end of 2017 pursuant to Section 8.01(b) of the Loan Agreement.

[8] Include bracketed entry only on the Compliance Certificate to be delivered within 90 days of the end of 2018 pursuant to Section 8.01(b) of the Loan Agreement.

[9] Include bracketed entry only on the Compliance Certificate to be delivered within 90 days of the end of 2019 pursuant to Section 8.01(b) of the Loan Agreement.

[10] Include bracketed entry only on the Compliance Certificate to be delivered within 90 days of the end of 2020 pursuant to Section 8.01(b) of the Loan Agreement.

OPINION REQUEST

The opinion of legal counsel to Borrower and each other Obligor should address the following matters (capitalized terms used but not defined herein have the meanings given to them in the Agreement):[11]

1. Power and authority (Section 7.01)
2. Due incorporation/good standing (Section 7.01)
3. Due authorization (Section 7.02)
4. Due execution & delivery (Section 7.02)
5. Enforceability (Section 7.02)
6. No consents/conflicts (Section 7.03)
7. Investment company (Section 7.10(a))
8. Board regulations T, U & X (Section 7.10(b))
9. Legal, valid and enforceable security interest (Section 7.18)
10. Perfection of security interest (UCC filings) (Section 7.18)

[11] The section numbers relate to those sections that are relevant to the particular opinion.

FORM OF LANDLORD CONSENT

THIS LANDLORD CONSENT (the "***Consent***") is made and entered into as of [INSERT DATE] by and among CRG PARTNERS III L.P., CRG PARTNERS III – PARALLEL FUND "A" L.P., CRG PARTNERS III – PARALLEL FUND "B" (CAYMAN) L.P. and CRG PARTNERS III (CAYMAN) L.P. ("***Lenders***"), SILK ROAD MEDICAL, INC., a Delaware corporation ("***Debtor***"), and [INSERT NAME OF LANDLORD], a [Delaware] [limited liability company] ("***Landlord***").

WHEREAS, Debtor has entered into a term loan agreement and a security agreement (collectively, the "***Agreements***"), each dated as of October 13, 2015, with the Lenders, each in its capacity as a lender and a secured party, with CRG Partners III L.P. as control agent for the Lenders (in such capacity, "***Agent***"), pursuant to which Lenders have been granted a security interest in substantially all of Debtor's personal property, including, but not limited to, inventory, equipment and trade fixtures (hereinafter "***Personal Property***"); and

WHEREAS, Landlord is the owner of the real property located at [___] (the "***Premises***"); and

WHEREAS, Landlord and Debtor have entered into that certain Lease dated [___][, as amended by [___] dated [___]] ([collectively,] the "***Lease***"); and

WHEREAS, certain of the Personal Property has or may become affixed to or be located on, wholly or in part, the Premises.

NOW, THEREFORE, in consideration of any loans or other financial accommodation extended by Lenders to Debtor at any time, and other good and valuable consideration, the parties agree as follows:

1. Landlord subordinates to Lenders all security interests or other interests or rights Landlord may now or hereafter have in, or to any of the Personal Property, whether for rent or otherwise, while Debtor is indebted to Lenders.

2. The Personal Property may be installed in or located on the Premises and is not and shall not be deemed a fixture or part of the real estate and shall at all times be considered personal property.

3. Agent or its representatives may enter upon the Premises during normal business hours, and upon not less than 24 hours' advance notice, to inspect the Personal Property.

4. Upon and during the continuance of an Event of Default under the Agreements, Agent or its representatives, at Agent's option, upon written notice delivered to Landlord not less than ten (10) business days in advance, may enter the Premises during normal business hours for the purpose of repossessing, removing or otherwise dealing with said Personal Property;

provided that neither Agent nor Lenders shall be permitted to operate the business of Debtor on the Premises or sell, auction or otherwise dispose of any Personal Property at the Premises or advertise any of the foregoing; and such license shall continue, from the date Agent enters the Premises for as long as Agent reasonably deems necessary but not to exceed a period of ninety (90) days. During the period Agent occupies the Premises, it shall pay to Landlord the rent provided under the Lease relating to the Premises, prorated on a per diem basis to be determined on a thirty (30) day month, without incurring any other obligations of Debtor.

5. Agent shall pay to Landlord any costs for damage to the Premises or the building in which the Premises is located in removing or otherwise dealing with said Personal Property pursuant to paragraph 4 above, and shall indemnify and hold harmless Landlord from and against

(i) all claims, disputes and expenses, including reasonable attorneys' fees, suffered or incurred by Landlord arising from Agent's exercise of any of its rights hereunder, and (ii) any injury to third persons, caused by actions of Agent pursuant to this Consent.

6. Landlord agrees to give notice to Agent in writing by certified mail or facsimile of Landlord's intent to exercise its remedies in response to any default by Debtor of any of the provisions of the Lease, to:

CRG Partners III L.P.
1000 Main Street, Suite 2500
Houston, TX 77002
Attention: General Counsel
Fax: 713.209.7351

7. Landlord shall have no obligation to preserve or protect the Personal Property or take any action in connection therewith, and Lenders waive all claims they may now or hereafter have against Landlord in connection with the Personal Property.

8. This Consent shall terminate and be of no further force or effect upon the earlier of (i) the date on which all indebtedness secured by the Personal Property indefeasibly is paid in full in cash and (ii) the date on which the Lease is terminated or expires.

9. Nothing contained herein shall be construed to amend the Lease, and the Lease remains unchanged and in full force and effect.

This Consent shall be construed and interpreted in accordance with and governed by the laws of the State of [___].

This Consent may not be changed or terminated orally and is binding upon and shall inure to the benefit of Landlord, Agent, Lenders and Debtor and the heirs, personal representatives, successors and assigns of Landlord, Agent, Lenders and Debtor.

[Signature Page follows]

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first above written.

LANDLORD:

[_____]

By _____

Name:

Title:

LENDERS:

CRG PARTNERS III L.P.
By CRG PARTNERS III GP L.P.,
its General Partner
By CRG PARTNERS III GP LLC,
its General Partner

By _____
Name: Charles Tate
Title: Sole Member

Address for Notices:

1000 Main Street, Suite 2500
Houston, TX 77002
Attn: General Counsel Tel.: 713.209.7350
Fax: 713.209.7351
Email: adorenbaum@crglp.com

CRG PARTNERS III – PARALLEL FUND
"A" L.P.
By CRG PARTNERS III – PARALLEL FUND
"A" GP L.P., its General Partner
By CRG PARTNERS III GP LLC,
its General Partner

By _____
Name: Charles Tate
Title: Sole Member

Address for Notices:

1000 Main Street, Suite 2500
Houston, TX 77002
Attn: General Counsel Tel.: 713.209.7350
Fax: 713.209.7351
Email: adorenbaum@crglp.com

CRG PARTNERS III – PARALLEL FUND
"B" (CAYMAN) L.P.

By CRG PARTNERS III (CAYMAN) GP L.P.,
its General Partner

By CRG PARTNERS III GP LLC,
its General Partner

By _____

Name: Charles Tate

Title: Sole Member

WITNESS:

Name:

Address for Notices:

1000 Main Street, Suite 2500
Houston, TX 77002
Attn: General Counsel Tel.: 713.209.7350
Fax: 713.209.7351
Email: adorenbaum@crglp.com

CRG PARTNERS III (CAYMAN) L.P.

By CRG PARTNERS III (CAYMAN) GP L.P.,
its General Partner

By CRG PARTNERS III GP LLC,
its General Partner

By _____

Name: Charles Tate

Title: Sole Member

WITNESS:

Name:

Address for Notices:

1000 Main Street, Suite 2500
Houston, TX 77002
Attn: General Counsel Tel.: 713.209.7350
Fax: 713.209.7351
Email: adorenbaum@crglp.com

Acknowledged and Agreed:

SILK ROAD MEDICAL, INC.

By _____

Name:

Title:

FORM OF SUBORDINATION AGREEMENT

This Subordination Agreement is made as of [___] (as amended, restated, modified or otherwise supplemented from time to time, this "***Agreement***") among CRG Partners III L.P., CRG Partners III – Parallel Fund "A" L.P., CRG Partners III – Parallel Fund "B" (Cayman) L.P. and CRG Partners III (Cayman) L.P. (collectively with their successors and assigns, the "***Senior Lenders***"), and [___], a [___] [corporation] ("***Subordinated Creditor***").

RECITALS:

A. Silk Road Medical, Inc. a Delaware corporation ("***Borrower***"), will, as of the date hereof, issue in favor of Subordinated Creditor the Subordinated Note (as defined below)[, and grant a security interest in the Subordinated Collateral (as defined below) in favor of Subordinated Creditor].

B. Senior Lenders and Borrower have entered into the Senior Loan Agreement (as defined below) and the Senior Security Agreement (as defined below) under which Borrower has granted a security interest in the Collateral (as defined below) in favor of Senior Lenders as security for the payment of Borrower's obligations under the Senior Loan Agreement.

C. To induce Senior Lenders to make and maintain the credit extensions to Borrower under the Senior Loan Agreement, Subordinated Creditor is willing to subordinate the Subordinated Debt (as defined below) to the Senior Debt (as defined below)[, and all liens securing the Subordinated Debt to the Senior Creditors' liens on and security interests in the Collateral] on the terms and conditions herein set forth.

NOW, THEREFORE, THE PARTIES AGREE AS FOLLOWS:

1. Definitions. As used herein, the following terms have the following meanings:

"***Bankruptcy Code***" means title 11 of the United States Code, 11 U.S.C. §§ 101 *et seq*.

"***Collateral***" has the meaning set forth in the Senior Security Agreement.

"***Enforcement Action***" means, with respect to any indebtedness, obligation (contingent or otherwise) or Collateral at any time held by any lender or noteholder, (i) commencing, by judicial or non-judicial means, the enforcement of, or otherwise attempting to enforce, such indebtedness, obligation or Collateral of any of the default remedies under any of the applicable agreements or documents of such lender or noteholder, the UCC or other applicable law (other than the mere issuance of a notice of default or notice of the right by such lender or noteholder to seek specific performance with respect to any covenants in favor of such lender or noteholder), (ii) repossessing, selling, leasing or otherwise disposing of all or any part of such Collateral, including without limitation causing any attachment of, levy upon, execution against, foreclosure upon or the taking of other action against or institution of other proceedings with respect to any Collateral, or exercising account debtor or obligor notification or collection rights with respect to

all or any portion thereof, or attempting or agreeing to do so, (iii) appropriating, setting off or applying to such lender or noteholder's claim any part or all of such Collateral or other property in the possession of, or coming into the possession of, such lender or noteholder or its agent, trustee or bailee, (iv) asserting any claim or interest in any insurance with respect to such indebtedness, obligation or Collateral, (v) instituting or commencing, or joining with any Person in commencing, any action or proceeding with respect to any of the foregoing rights or remedies (including any action of foreclosure, enforcement, collection or execution and any Insolvency Event involving any Obligor), (vi) exercising any rights under any lockbox agreement, account control agreement, landlord waiver or bailee's letter or similar agreement or arrangement to which the Subordinated Creditor is a party, (vii) [causing or compelling the pledge or delivery of Subordinated Collateral], or (viii) otherwise enforcing, or attempting to enforce, any other rights or remedies under or with respect to any such indebtedness, obligation or Collateral.

"***Insolvency Event***" means that any Obligor or any of its subsidiaries shall have (i) applied for, consented to or acquiesced in the appointment of a trustee, receiver or other custodian for it or any of its property, or (ii) made a general assignment for the benefit of creditors or similar arrangement in respect of such Obligor's or subsidiary's creditors generally or any substantial portion thereof, or (iii) permitted, consented to, or suffered to exist the appointment of a trustee, receiver or other custodian for it or for a substantial part of its property, or (iv) commenced any case, action or proceeding before any court or other governmental agency or authority relating to bankruptcy, reorganization, insolvency, debt arrangement or relief or other case, action or proceeding under any bankruptcy or insolvency law, or any dissolution, winding up or liquidation case, action or proceeding, including without limitation any case under the Bankruptcy Code, in respect of it, or (v) (A) permitted, consented to, or suffered to exist the commencement of any case, action or proceeding before any court or other governmental agency or authority relating to bankruptcy, reorganization, insolvency, debt arrangement or relief or other case, action or proceeding under any bankruptcy or insolvency law, or any dissolution, winding up or liquidation case, action or proceeding, including without limitation any case under the Bankruptcy Code, in respect of it, and (B) any such case, action or proceeding shall have resulted in the entry of an order for relief or shall have remained for sixty (60) days undismissed.

"***Obligor***" has the meaning set forth in the Senior Loan Agreement.

"***Person***" has the meaning set forth in the Senior Loan Agreement.

"***Senior Debt***" means the Obligations (as defined in the Senior Loan Agreement).

"***Senior Discharge Date***" means the first date on which all of the Senior Debt (other than contingent indemnification obligations) has been paid indefeasibly in full in cash and all commitments of Senior Lenders under the Senior Loan Documents have been terminated.

"***Senior Loan Agreement***" means that certain Term Loan Agreement, dated as of [INSERT DATE], by and among Borrower, the Subsidiary Guarantors from time to time party thereto and Senior Lenders, as amended, restated, supplemented or otherwise modified from time to time.

"***Senior Loan Documents***" means, collectively, the Loan Documents (as defined in the Senior Loan Agreement), in each case as amended, restated, supplemented or otherwise modified from time to time.

"***Senior Security Agreement***" means that certain Security Agreement, dated as of [___], among Borrower, the other Obligors party thereto, and the Secured Parties (as defined therein), as amended, restated, supplemented or otherwise modified from time to time.

["***Subordinated Collateral***" means any property or assets that may at any time be or become subject to a lien or security interest in favor of the Subordinated Creditor pursuant to the Subordinated Collateral Documents or otherwise, and all products and proceeds of any of the foregoing.]

["***Subordinated Collateral Documents***" means, collectively, each security agreement, deed of trust, mortgage, pledge agreement and any other agreement pursuant to which any Obligor or any other Person provides a lien on or security interest in its assets in favor of the Subordinated Creditor, and all financing statements, fixture filings, patent, trademark and copyright filings, assignments, acknowledgments and other filings, documents and agreements made or delivered pursuant thereto.]

"***Subordinated Debt***" means and includes all obligations, liabilities and indebtedness of Borrower owed to Subordinated Creditor, whether direct or indirect, absolute or contingent, due or to become due, or now existing or hereafter incurred, including without limitation, principal, premium (if any), interest, fees, charges, expenses, costs, professional fees and expenses, and reimbursement obligations.

"***Subordinated Debt Documents***" means, collectively, the Subordinated Note and each other loan document or agreement entered into by Borrower in connection with the Subordinated Note[, including without limitation each Subordinated Collateral Document], as amended, restated, supplemented or otherwise modified from time to time.

"***Subordinated Note***" means that certain $[___] subordinated promissory note, dated [___], issued by Borrower to Subordinated Creditor, as amended, restated, supplemented or otherwise modified from time to time.

"***UCC***" means the Uniform Commercial Code of any applicable jurisdiction and, if the applicable jurisdiction shall not have any Uniform Commercial Code, the Uniform Commercial Code as in effect in the State of New York.

2. Liens. (a) Subordinated Creditor represents and warrants that [12][the Subordinated Debt is unsecured. Subordinated Creditor agrees that it will not request or accept any security interest in any Collateral to secure the Subordinated Debt; *provided that*, should Subordinated Creditor obtain a lien or security interest on any asset or Collateral to secure all or any portion of the Subordinated Debt for any reason (which action shall be in violation of this Agreement), notwithstanding the respective dates of attachment and perfection of the security interests in the

[12] Select one, as appropriate.

Collateral in favor of Senior Lenders or Subordinated Creditor, or any contrary provision of the UCC, or any applicable law or decision to the contrary, or the provisions of the Senior Loan Documents or the Subordinated Debt Documents, and irrespective of whether Subordinated Creditor or Senior Lenders hold possession of any or all part of the Collateral, all now existing or hereafter arising security interests in the Collateral in favor of Subordinated Creditor in respect of the Subordinated Debt Documents shall at all times be subordinate to the security interest in such Collateral in favor of Senior Lenders in respect of the Senior Loan Documents.] [all liens and security interests, if any, now or hereafter existing that secure the Subordinated Debt, are hereby subordinated and junior in all respects to the liens and security interests now or hereafter existing securing the Senior Debt, regardless of the time, manner or order of attachment or perfection of any such liens and security interests, the time or order of filing of financing statements, the acquisition of purchase money or other liens or security interests, the time of giving or failure to give notice of the acquisition or expected acquisition of purchase money or other liens or security interests, or any other circumstances whatsoever.]

(b) Subordinated Creditor acknowledges that Senior Lenders have been granted liens upon the Collateral [(including the Subordinated Collateral)], and Subordinated Creditor hereby consents thereto and to the incurrence of the Senior Debt.

(c) Until the Senior Discharge Date, in the event of any private or public sale or other disposition of all or any portion of the Collateral, Subordinated Creditor agrees that such Collateral shall be sold or otherwise disposed of free and clear of any liens in favor of Subordinated Creditor. Subordinated Creditor agrees that any such sale or disposition of Collateral shall not require any consent from Subordinated Creditor, and Subordinated Creditor hereby waives any right it may have to object to such sale or disposition.

(d) [Subordinated Creditor agrees that it will not request or accept any guaranty of the Subordinated Debt.]

(e) [Each of Senior Lenders and Subordinated Creditor agrees to hold all collateral in which a lien may be perfected by possession or control ("***Possessory Collateral***") in its possession, custody, or control (or in the possession, custody, or control of agents or bailees for any such party) as agent for the other solely for the purpose of perfecting the security interest granted to each in such Possessory Collateral subject to the terms and conditions of this Agreement. Neither any Senior Lender nor Subordinated Creditor shall have any obligation whatsoever to the other to assure that any Possessory Collateral is genuine or owned by any Obligor or any other Person or to preserve its rights or benefits or those of any Person. The duties or responsibilities of Senior Lenders and Subordinated Creditor under this **Section 2(e)** are and shall be limited solely to holding or maintaining control of the Possessory Collateral as agent for the others for purposes of perfecting the lien or security interest held by such others. Senior Lenders are not and shall not be deemed to be a fiduciary of any kind for Subordinated Creditor or any other Person.]

3. Payment Subordination. (a) Notwithstanding the terms of the Subordinated Debt Documents, until the Senior Discharge Date, (i) all payments and distributions of any kind or character, whether in cash, property or securities, in respect of the Subordinated Debt are subordinated in right and time of payment to all payments in respect of the Senior Debt, and (ii)

Subordinated Creditor will not demand, sue for or receive from Borrower (and Borrower will not pay) any part of the Subordinated Debt, whether by payment, prepayment, distribution, setoff, or otherwise, or accelerate the Subordinated Debt.

(b) Subordinated Creditor must deliver to Senior Lenders in the form received (except for endorsement or assignment by Subordinated Creditor) any payment, distribution, security or proceeds it receives on the Subordinated Debt other than according to this Agreement.

4. Subordination of Remedies. Until the Senior Discharge Date, and whether or not any Insolvency Event has occurred, Subordinated Creditor will not accelerate the maturity of all or any portion of the Subordinated Debt, enforce, attempt to enforce, or exercise any right or remedy with respect to any Collateral [(including the Subordinated Collateral)] or the Subordinated Debt, or take any other Enforcement Action with respect to the Subordinated Debt [or the Subordinated Collateral].

5. Payments Over. All payments and distributions of any kind, whether in cash, property or securities, in respect of the Subordinated Debt to which Subordinated Creditor would be entitled if the Subordinated Debt were not subordinated pursuant to this Agreement, shall be paid to Senior Lenders in respect of the Senior Debt, regardless of whether such Senior Debt, or any portion thereof, is reduced, expunged, disallowed, subordinated or recharacterized. Notwithstanding the foregoing, if any payment or distribution of any kind, whether in cash, property or securities, shall be received by Subordinated Creditor on account of the Subordinated Debt [or the Subordinated Collateral] before Senior Discharge Date (whether or not expressly characterized as such), then such payment or distribution shall be segregated by Subordinated Creditor and held in trust for, and shall be promptly paid over to, Senior Lenders in the same form as received, with any necessary endorsements or as a court of competent jurisdiction may otherwise direct, in respect of the Senior Debt, regardless of whether such Senior Debt, or any portion thereof, is reduced, expunged, disallowed, subordinated or recharacterized. Subordinated Creditor irrevocably appoints Senior Lenders as Subordinated Creditor's attorney-in-fact, and grants to Senior Lenders a power of attorney with full power of substitution (which power of attorney is coupled with an interest), in the name of Subordinated Creditor or in the name of Senior Lenders, for the use and benefit of Senior Lenders, without notice to Subordinated Creditor, to make any such endorsements. This **Section 5** shall be enforceable even if Senior Lenders' liens on the Collateral are alleged, determined, or held to constitute fraudulent transfers (whether constructive or actual), preferential transfers, or otherwise avoided or voidable, set aside, recharacterized or equitably subordinated.

6. Insolvency Proceedings. (a) This Agreement is intended to constitute and shall be deemed to constitute a "subordination agreement" within the meaning of Section 510(a) of the Bankruptcy Code and is intended to be and shall be interpreted to be enforceable to the maximum extent permitted pursuant to applicable nonbankruptcy law. All references to Borrower or any other Obligor shall include Borrower or such Obligor as debtor and debtor-in- possession and any receiver or trustee for Borrower or any other Obligor (as the case may be) in connection with any case under the Bankruptcy Code or in connection with any other Insolvency Event.

(b) Without limiting the generality of the other provisions of this Agreement, until the Senior Discharge Date, without the express written consent of Senior Lenders, Subordinated Creditor shall not institute or commence (nor shall it join with or support any third party instituting, commencing, opposing, objecting or contesting, as the case may be, or otherwise suffer to exist), any Insolvency Event involving Borrower or any other Obligor.

(c) Senior Lenders shall have the right to enforce rights, exercise remedies (including set-off and the right to credit bid its debt) and make determinations regarding the release, disposition, or restrictions with respect to the Collateral without any consultation with or consent of Subordinated Creditor.

(d) Subordinated Creditor will not, and hereby waives any right to bring, join in, or otherwise support or take any action to (i) contest the validity, legality, enforceability, perfection, priority or avoidability of any of the Senior Debt, any of the Senior Loan Documents or any security interests and/or liens of Senior Lenders on or in any property or assets of Borrower or any other Obligor, including without limitation, the Collateral; (ii) interfere with or in any manner oppose or support any other Person in opposing any foreclosure on or other disposition of any Collateral by the Senior Lender in accordance with applicable law, or otherwise to contest, protest, object to or interfere with the manner in which Senior Lenders may seek to enforce the Liens on any Collateral; (iii) provide a debtor-in-possession facility (including on a priming basis) to Borrower or any other Obligor, under Section 362, 363 or 364 of the Bankruptcy Code or any other applicable law, without the consent, in their sole discretion, of Senior Lenders; or (iv) exercise any rights against Senior Lenders or the Collateral under Section 506(c) of the Bankruptcy Code. [Subordinated Creditor hereby waives any and all rights it may have as a junior lien creditor or otherwise to contest, protest, object to or interfere with the manner in which Senior Lender seeks to enforce its liens on or security interests in any Collateral.]

(e) Subordinated Creditor will not, and hereby waives any right to, oppose, contest, object to, join in, or otherwise support any opposition to or objection with respect to, (i) any request or motion of Senior Lenders seeking, pursuant to Section 362(d) of the Bankruptcy Code or otherwise, the modification, lifting or vacating of the automatic stay of Section 362(a) of the Bankruptcy Code or from any other stay in connection with any Insolvency Event or seeking adequate protection of Senior Lenders' interests in the Collateral or with respect to the Senior Debt (whether under Sections 362, 363, and/or 364 of the Bankruptcy Code or other applicable law), and, until Senior Discharge Date, Subordinated Creditor agrees that it shall not seek relief from such automatic stay without the prior written consent of Senior Lenders; (ii) any debtor-in- possession financing (including on a priming basis) or use of cash collateral (as defined in Section 363(a) of the Bankruptcy Code or other applicable law) arrangement by Borrower, whether from Senior Lenders or any other third party under Section 362, 363 or 364 of the Bankruptcy Code or any other applicable law, if Senior Lenders, in their sole discretion, consent to such debtor-in-possession financing or cash collateral arrangement, and Subordinated Creditor shall not request adequate protection (whether under Sections 362, 363, and/or 364 of the Bankruptcy Code or other applicable law) or any other relief in connection therewith; (iii) any sale or other disposition of the Collateral or substantially all of the assets of Borrower or any other Obligor (include any such sale free and clear of liens or other claims) under Section 363 of the Bankruptcy Code or other applicable law if Senior Lenders, in their sole discretion, consent

to such sale or disposition; (vii) Senior Lenders' exercise or enforcement of its right to make an election under Section 1111(b) of the Bankruptcy Code, and Subordinated Creditor hereby waives any claim it may hereafter have against Senior Lenders arising out of such election; (viii) Senior Lenders' exercise or enforcement of its right to credit bid any or all of its debt claims against Borrower or any other Obligor, including, without limitation, the Senior Debt; or (ix) any plan of reorganization or liquidation if Senior Lenders, in their sole discretion, consent to, vote in favor of, or otherwise do not oppose such plan of reorganization or liquidation, and, in furtherance thereof, Subordinated Creditor hereby grants to Senior Lenders the right to vote Subordinated Creditor's claim or claims (as such term is defined in the Bankruptcy Code) arising on account of or in connection with the Subordinated Debt, as Subordinated Creditor's agent, with respect to any plan of reorganization or liquidation to which Subordinated Creditor may be entitled to vote in any bankruptcy or liquidation proceeding or in connection with any other Insolvency Event of Borrower or any other Obligor.

7. **Distributions of Proceeds of Collateral**. All realizations upon any Collateral pursuant to or in connection with an Enforcement Action, an Insolvency Event or otherwise shall be paid or delivered to Senior Lenders in respect of the Senior Debt until the Senior Discharge Date before any payment may be made to Subordinated Creditor.

8. **Release of Liens**. In the event of any private or public sale or other disposition, by or with the consent of Senior Lenders, of all or any portion of the Collateral, Subordinated Creditor agrees that such sale or disposition shall be free and clear of any liens Subordinated Creditor may have on such Collateral[, and, if the sale or other disposition includes any pledged equity interests in any Obligor, if the Subordinated Collateral includes any such any pledged equity interests, the Subordinated Creditor further agrees to release the entities whose pledged equity interests are sold from all Subordinated Debt]. Subordinated Creditor agrees that, in connection with any such sale or other disposition, (i) Senior Lenders are authorized to file any and all UCC and other applicable lien releases and/or terminations in respect of any liens held by Subordinated Creditor in connection with such a sale or other disposition, and (ii) it shall execute any and all lien releases or other documents reasonably requested by Senior Lenders in connection therewith. In furtherance of the foregoing, Subordinated Creditor hereby appoints Senior Lenders as its attorney-in-fact, with full authority in the place and stead of Subordinated Creditor and full power of substitution and in the name of Subordinated Creditor or otherwise, to execute and deliver any document or instrument which Subordinated Creditor is required to deliver pursuant to this **Section 8**, such appointment being coupled with an interest and irrevocable. Subordinated Creditor agrees that Senior Lenders may release or refrain from enforcing its security interest in any Collateral, or permit the use or consumption of such Collateral by Borrower free of any Subordinated Creditor security interest, without incurring any liability to Subordinated Creditor.

9. **Attorney-In-Fact**. Until the Senior Discharge Date, Subordinated Creditor irrevocably appoints Senior Lenders as its attorney-in-fact, with power of attorney with power of substitution, in Subordinated Creditor's name or in Senior Lenders' name, for Senior Lenders' use and benefit without notice to Subordinated Creditor, to do the following during an Insolvency Event:

(a) file any claims in respect of the Subordinated Debt on behalf of Subordinated Creditor if Subordinated Creditor does not do so at least 30 days before the time to file claims expires; and

(b) vote Subordinated Creditor's claim or claims (as such term is defined in the Bankruptcy Code) arising on account of or in connection with the Subordinated Debt, as Subordinated Creditor's agent, with respect to any plan of reorganization or liquidation to which Subordinated Creditor may be entitled to vote in any bankruptcy or liquidation proceeding or in connection with any other Insolvency Event of Borrower or any other Obligor.

Such power of attorney is irrevocable and coupled with an interest.

10. Legend; Amendment of Debt. (a) Subordinated Creditor will immediately put a legend on or otherwise indicate on the Subordinated Note that the Subordinated Note is subject to this Agreement.

(b) Until the Senior Discharge Date, Subordinated Creditor shall not, without prior written consent of Senior Lenders, agree to any amendment, modification or waiver of any provision of the Subordinated Debt Documents, if the effect of such amendment, modification or waiver is to: (i) terminate or impair the subordination of the Subordinated Debt in favor of Senior Lenders; (ii) increase the interest rate on the Subordinated Debt or change (to earlier dates) the dates upon which principal, interest and other sums are due under the Subordinated Note; (iii) alter the redemption, prepayment or subordination provisions of the Subordinated Debt; (iv) impose on Borrower or any other Obligor any new or additional prepayment charges, premiums, reimbursement obligations, reimbursable costs or expenses, fees or other payment obligations; (v) alter the representations, warranties, covenants, events of default, remedies and other provisions in a manner which would make such provisions materially more onerous, restrictive or burdensome to Borrower or any other Obligor; (vi) [13][grant a lien or security interest in favor of any holder of the Subordinated Debt on any asset or Collateral to secure all or any portion of the Subordinated Debt][terminate or impair the subordination of any security interest or lien securing the Subordinated Debt in favor of Senior Lenders]; or (vii) otherwise increase the obligations, liabilities and indebtedness in respect of the Subordinated Debt or confer additional rights upon Subordinated Creditor, which individually or in the aggregate would be materially adverse to Borrower, any other Obligor or Senior Lenders. Any such amendment, modification or waiver made in violation of this **Section 10(b)** shall be void.

(c) At any time without notice to Subordinated Creditor, Senior Lenders may take such action with respect to the Senior Debt as Senior Lenders, in their sole discretion, may deem appropriate, including, without limitation, terminating advances, increasing the principal, extending the time of payment, increasing interest rates, renewing, compromising or otherwise amending any documents affecting the Senior Debt and any Collateral securing the Senior Debt, and enforcing or failing to enforce any rights against Borrower or any other person. No action or inaction will impair or otherwise affect Senior Lenders' rights under this Agreement.

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[13] Select one, as appropriate.

11. Certain Waivers. (a) Subordinated Creditor hereby (i) waives any and all notice of the incurrence of the Senior Debt or any part thereof; (ii) waives any and all rights it may have to require Senior Lenders to marshal assets, to exercise rights or remedies in a particular manner, to forbear from exercising such rights and remedies in any particular manner or order, or to claim the benefit of any appraisal, valuation or other similar right that may otherwise be available under applicable law, regardless of whether any action or failure to act by or on behalf of Senior Lenders is adverse to the interest of Subordinated Creditor; (iii) agrees that Senior Lenders shall have no liability to Subordinated Creditor, and Subordinated Creditor hereby waives any claim against Senior Lenders arising out of any and all actions not in breach of this Agreement which Senior Lenders may take or permit or omit to take with respect to the Senior Loan Documents (including any failure to perfect or obtain perfected security interests in the Collateral), the collection of the Senior Debt or the foreclosure upon, or sale, liquidation or other disposition of, any Collateral; and (iv) agrees that Senior Lenders have no duty, express or implied, fiduciary or otherwise, to them in respect of the maintenance or preservation of the Collateral, the Senior Debt or otherwise. Without limiting the foregoing, Subordinated Creditor agrees that Senior Lenders shall have no duty or obligation to maximize the return to any class of creditors holding indebtedness of any type (whether Senior Debt or Subordinated Debt), notwithstanding that the order and timing of any realization, sale, disposition or liquidation of the Collateral may affect the amount of proceeds actually received by such class of creditors from such realization, sale, disposition or liquidation.

(b) Subordinated Creditor confirms that this Agreement shall govern as between the Senior Lenders and the Subordinated Creditor irrespective of: (i) any lack of validity or enforceability of any Senior Loan Document or any Subordinated Debt Document; (ii) the occurrence of any Insolvency Event in respect of any Obligor; (iii) whether the Senior Debt, or the liens or security interests securing the Senior Debt, shall be held to be unperfected, deficient, invalid, void, voidable, voided, unenforceable, subordinated, reduced, discharged or are set aside by a court of competent jurisdiction, including pursuant or in connection with any Insolvency Event; (iv) any change in the time, manner or place of payment of, or in any other terms of, all or any of the Senior Debt or the Subordinated Debt, or any amendment or waiver or other modification, including any increase in the amount thereof, whether by course of conduct or otherwise, of the terms of any Senior Loan Document or any Subordinated Debt Document or any guarantee thereof; or (v) any other circumstances which otherwise might constitute a defense available to, or a discharge of, any Obligor in respect of the Senior Debt or the Subordinated Debt.

12. Representations and Warranties. Subordinated Creditor represents and warrants to Senior Lenders that:

(a) all action on the part of Subordinated Creditor, its officers, directors, partners, members and shareholders, as applicable, necessary for the authorization of this Agreement and the performance of all obligations of Subordinated Creditor hereunder has been taken;

(b) this Agreement constitutes the legal, valid and binding obligation of Subordinated Creditor, enforceable against Subordinated Creditor in accordance with its terms;

(c) the execution, delivery and performance of and compliance with this Agreement by Subordinated Creditor will not (i) result in any material violation or default of any term of any of Subordinated Creditor's charter, formation or other organizational documents (such as Articles or Certificate of Incorporation, bylaws, partnership agreement, operating agreement, etc.) or (ii) violate any material applicable law, rule or regulation; and

(d) Subordinated Creditor has not previously assigned any interest in the Subordinated Debt[or any Subordinated Collateral], and no Person other than the Subordinated Creditor owns an interest in the Subordinated Debt[or Subordinated Collateral].

13. Term; Reinstatement. This Agreement shall remain in full force and effect until the Senior Discharge Date, notwithstanding the occurrence of an Insolvency Event. If, after the Senior Discharge Date, Senior Lenders must disgorge any payments made on the Senior Debt for any reason (including, without limitation, in connection with the bankruptcy of Borrower or in connection with any other Insolvency Event), this Agreement and the relative rights and priorities provided in it, will be reinstated as to all disgorged payments as though such payments had not been made, and Subordinated Creditor will immediately pay Senior Lenders all payments received in respect of the Subordinated Debt to the extent such payments or retention thereof would have been prohibited under this Agreement.

14. Successors and Assigns. This Agreement binds Subordinated Creditor, its successors or assigns, and benefits Senior Lenders' successors or assigns. This Agreement is for Subordinated Creditor's and Senior Lenders' benefit and not for the benefit of Borrower or any other party. Subordinated Creditor shall not sell, assign, pledge, dispose of or otherwise transfer all or any portion of the Subordinated Debt or any related document or any interest in any Collateral therefor unless prior to the consummation of any such action, the transferee thereof shall execute and deliver to Senior Lenders an agreement of such transferee to be bound hereby, or an agreement substantially identical to this Agreement providing for the continued subjection of the Subordinated Debt, the interests of the transferee in the Collateral and the remedies of the transferee with respect thereto as provided herein with respect to Subordinated Creditor and for the continued effectiveness of all of the other rights of Senior Lenders arising under this Agreement, in each case in form satisfactory to Senior Lenders. Any such sale, assignment, pledge, disposition or transfer not made in compliance with the terms of this **Section 14** shall be void.

15. Further Assurances. Subordinated Creditor hereby agrees to execute such documents and/or take such further action as Senior Lenders may at any time or times reasonably request in order to carry out the provisions and intent of this Agreement, including, without limitation, ratifications and confirmations of this Agreement from time to time hereafter, as and when requested by Senior Lenders.

16. Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original and all of which together shall constitute one instrument. Executed counterparts may be delivered by facsimile.

17. Governing Law; Waiver of Jury Trial. (a) This Agreement and the rights and obligations of the parties hereunder shall be governed by, and construed in accordance with, the

law of the State of New York, without regard to principles of conflicts of laws that would result in the application of the laws of any other jurisdiction; *provided* that Section 5-1401 of the New York General Obligations Law shall apply.

(b) EACH PARTY HERETO WAIVES ITS RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF THIS AGREEMENT OR ANY OF THE TRANSACTIONS CONTEMPLATED HEREIN.

18. Entire Agreement; Waivers and Amendments. This Agreement represents the entire agreement with respect to the subject matter hereof, and supersedes all prior negotiations, agreements and commitments. Senior Lenders and Subordinated Creditor are not relying on any representations by the other creditor party or Borrower in entering into this Agreement, and each of Senior Lenders and Subordinated Creditor has kept and will continue to keep itself fully apprised of the financial and other condition of Borrower. No amendment, modification, supplement, termination, consent or waiver of or to any provision of this Agreement, nor any consent to any departure therefrom, shall in any event be effective unless the same shall be in writing and signed by Senior Lenders and Subordinated Creditor. Any waiver of any provision of this Agreement, or any consent to any departure from the terms of any provision of this Agreement, shall be effective only in the specific instance and for the specific purpose for which given.

19. No Waiver. No failure or delay on the part of any Senior Lender or Subordinated Creditor in the exercise of any power, right, remedy or privilege under this Agreement shall impair such power, right, remedy or privilege or shall operate as a waiver thereof, nor shall any single or partial exercise of any such power, right or privilege preclude any other or further exercise of any other power, right or privilege. The rights and remedies under this Agreement are cumulative and not exclusive of any rights, remedies, powers and privileges that may otherwise be available to Senior Lenders.

20. Legal Fees. In the event of any legal action to enforce the rights of a party under this Agreement, the party prevailing in such action shall be entitled, in addition to such other relief as may be granted, all reasonable, invoiced and out-of-pocket costs and expenses, including reasonable attorneys' fees, incurred in such action.

21. Severability. Any provision of this Agreement which is illegal, invalid, prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent such illegality, invalidity, prohibition or unenforceability without invalidating or impairing the remaining provisions hereof or affecting the validity or enforceability of such provision in any other jurisdiction.

22. Notices. All notices, demands, instructions and other communications required or permitted to be given to or made upon any party hereto shall be in writing and shall be delivered or sent by first-class mail, postage prepaid, or by overnight courier or messenger service or by facsimile or electronic mail, message confirmed, and shall be deemed to be effective for purposes of this Agreement on the day that delivery is made or refused. Unless otherwise specified in a notice mailed or delivered in accordance with the foregoing sentence, notices, demands, instructions and other communications in writing shall be given to or made upon the

respective parties hereto at their respective addresses and facsimile numbers indicated on the signature pages hereto.

23. No Third-Party Beneficiaries; Other Benefits. The terms and provisions of this Agreement are intended solely for the benefit of each party hereto and their respective successors and permitted assigns, and the parties do not intend to confer third party beneficiary rights upon any other person. Subordinated Creditor understands that there may be various agreements between Senior Lenders and Borrower or the other Obligors evidencing and governing the Senior Debt, and Subordinated Creditor acknowledges and agrees that such agreements are not intended to confer any benefits on Subordinated Creditor and that Senior Lenders shall have no obligation to Subordinated Creditor or any other Person to exercise any rights, enforce any remedies, or take any actions which may be available to it under such agreements.

[Signature pages follow]

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first above written.

SUBORDINATED CREDITOR:
[___]
By _____
Name:
Title:

Address for Notices:

SENIOR LENDERS:

CRG PARTNERS III L.P.
By CRG PARTNERS III GP L.P., its General Partner
By CRG PARTNERS III GP LLC, its General Partner

By _____
Name: Charles Tate
Title: Sole Member

Address for Notices:

1000 Main Street, Suite 2500
Houston, TX 77002
Attn: General Counsel
Tel.: 713.209.7350
Fax: 713.209.7351
Email: adorenbaum@crglp.com

CRG PARTNERS III - PARALLEL FUND "A" L.P.
By CRG PARTNERS III - PARALLEL FUND "A" GP L.P., its General Partner
By CRG PARTNERS III GP LLC, its General Partner

By _____
Name: Charles Tate
Title: Sole Member

Address for Notices:

1000 Main Street, Suite 2500
Houston, TX 77002
Attn: General Counsel
Tel.: 713.209.7350
Fax: 713.209.7351
Email: adorenbaum@crglp.com

CRG PARTNERS III - PARALLEL FUND "B" (CAYMAN) L.P.
By CRG PARTNERS III (CAYMAN) GP L.P., its General Partner
By CRG PARTNERS III GP LLC, its General Partner

By _____
Name: Charles Tate
Title: Sole Member

WITNESS:
Name:

Address for Notices:

1000 Main Street, Suite 2500
Houston, TX 77002
Attn: General Counsel
Tel.: 713.209.7350
Fax: 713.209.7351
Email: adorenbaum@crglp.com

CRG PARTNERS III (CAYMAN) L.P.
By CRG PARTNERS III (CAYMAN) GP L.P., its General Partner
By CRG PARTNERS III GP LLC, its General Partner

By _____
Name: Charles Tate
Title: Sole Member

WITNESS:
Name:

Address for Notices:

1000 Main Street, Suite 2500
Houston, TX 77002
Attn: General Counsel
Tel.: 713.209.7350
Fax: 713.209.7351
Email: adorenbaum@crglp.com

SILK ROAD MEDICAL, INC.

By _____

Name:

Title:

Address for Notices:

[_____]

[_____]

[_____]

Attn: [_____]

Tel.: [_____]

Fax: [_____]

Email: [_____]

FORM OF INTERCREDITOR AGREEMENT

This Intercreditor Agreement, dated as of [___] (this "***Agreement***"), is made among CRG Partners III L.P. ("***CRG III***"), CRG Partners III – Parallel Fund "A" L.P. ("***PFA***"), and CRG Partners III - Parallel Fund "B" (Cayman) L.P. ("***PFB***") and CRG Partners III (Cayman) L.P. ("***Cayman***", and collectively with CRG III, PFA, PFB and their successors and assignees, "***CRG***"), and [INSERT NAME OF A/R LENDER], a [___] ("***[A/R Lender]***").

RECITALS

A. [A/R Lender] and Silk Road Medical, Inc., a Delaware corporation ("***Borrower***"), have entered into the A/R Facility Agreement (as defined below), which, along with any other obligations owing to [A/R Lender] by Borrower, is secured by certain property of Borrower [and the other Obligors (as defined below)].

B. CRG and Borrower have entered into that certain Term Loan Agreement, dated as of October_, 2015 (as amended, restated, supplemented or otherwise modified from time to time, the "***CRG Credit Agreement***"), which is secured by certain property of Borrower and the other Obligors.

C. To induce each of [A/R Lender] and CRG (collectively, "***Creditors***" and each individually, a "***Creditor***") to make and maintain the credit extensions under the A/R Facility Agreement and the CRG Credit Agreement, respectively, the other Creditor is willing to enter into this Agreement to, among other things, subordinate certain of its liens on the terms and conditions herein set forth.

NOW, THEREFORE, THE PARTIES AGREE AS FOLLOWS:

1. Definitions. As used herein, the following terms have the following meanings:

"***A/R Facility Agreement***" means that certain [Credit Agreement] between [A/R Lender] and Borrower dated as of [___] as the same may be amended, restated, supplemented or otherwise modified from time to time.

"***A/R Facility Documents***" means the A/R Facility Agreement and all [Loan Documents], each as defined in the A/R Facility Agreement.

"***A/R Facility Senior Collateral***" means (i) [Borrower's] accounts arising from the sale or lease of inventory or the provision of services, excluding IP/Equipment Accounts (collectively, "***Inventory/Service Accounts***"), (ii) [Borrower's] inventory, (iii) to the extent evidencing, governing, or securing [Borrower's] Inventory/Service Accounts or inventory, [Borrower's] payment intangibles, chattel paper, instruments, Supporting Obligations and documents, (iv) to the extent held in a segregated deposit account that does not contain other cash, cash proceeds of [Borrower's] Inventory/Service Accounts and inventory, and (v) proceeds of insurance policies

covering [Borrower's] Inventory/Service Accounts and inventory received with respect to such accounts and inventory; *provided that*, for purposes of clarification, notwithstanding the foregoing, in no event shall "A/R Facility Senior Collateral" include (A) any right, title or interest of any Obligor in any Intellectual Property or any licenses thereof, (B) any accounts or proceeds arising from the sale, transfer, licensing or other disposition of any Intellectual Property or licenses, or from the sale, transfer, lease or other disposition of equipment (collectively, "***IP/Equipment Accounts***"), (C) equipment, (D) to the extent evidencing, governing, securing or otherwise related to equipment, any general intangibles, chattel paper, instruments or documents, or (E) proceeds of equipment or proceeds of insurance policies with respect to equipment.

"***Bankruptcy Code***" means the federal bankruptcy law of the United States as from time to time in effect, currently as Title 11 of the United States Code. Section references to current sections of the Bankruptcy Code shall refer to comparable sections of any revised version thereof if section numbering is changed.

"***Claim***" means, (i) in the case of [A/R Lender], any and all present and future "claims" (used in its broadest sense, as contemplated by and defined in Section 101(5) of the Bankruptcy Code, but without regard to whether such claim would be disallowed under the Bankruptcy Code) of [A/R Lender] now or hereafter arising or existing under or relating to the A/R Facility Documents (with the portion of [A/R Lender]'s Claim at any time consisting of the aggregate principal amount of indebtedness under the A/R Facility Documents not to exceed the lesser of $[___] and 80% of the face amount at such time of [Borrower's] eligible Inventory/Service Accounts (as defined in the A/R Facility Agreement as of the date hereof)), whether joint, several, or joint and several, whether fixed or indeterminate, due or not yet due, contingent or non-contingent, matured or unmatured, liquidated or unliquidated, or disputed or undisputed, whether under a guaranty or a letter of credit, and whether arising under contract, in tort, by law, or otherwise, any interest or fees thereon (including interest or fees that accrue after the filing of a petition by or against any Obligor under the Bankruptcy Code, irrespective of whether allowable under the Bankruptcy Code), any costs of Enforcement Actions, including reasonable attorneys' fees and costs, and any prepayment or termination fees, and (ii) in the case of CRG, any and all present and future "claims" (used in its broadest sense, as contemplated by and defined in Section 101(5) of the Bankruptcy Code, but without regard to whether such claim would be disallowed under the Bankruptcy Code) of CRG now or hereafter arising or existing under or relating to the CRG Documents, whether joint, several, or joint and several, whether fixed or indeterminate, due or not yet due, contingent or non-contingent, matured or unmatured, liquidated or unliquidated, or disputed or undisputed, whether under a guaranty or a letter of credit, and whether arising under contract, in tort, by law, or otherwise, any interest or fees thereon (including interest or fees that accrue after the filing of a petition by or against any Obligor under the Bankruptcy Code, irrespective of whether allowable under the Bankruptcy Code), any costs of Enforcement Actions, including reasonable attorneys' fees and costs, and any prepayment or termination fees.

"***Collateral***" means all real or personal property of any Obligor in which any Creditor now or hereafter has a security interest.

"***Common Collateral***" means all Collateral in which both [A/R Lender] and CRG have a security interest.

"***CRG Documents***" means all documentation related to the CRG Credit Agreement and all Loan Documents (as defined in the CRG Credit Agreement), including security or pledge agreements and all other related agreements.

"***CRG Senior Collateral***" means all Collateral in which CRG has a security interest, other than the A/R Facility Senior Collateral, including, for the avoidance of doubt and without limitation, any additional Collateral in which CRG may have a security interest following the commencement of or in connection with any Insolvency Proceeding, including without limitation Collateral subject to any CRG security interests, superpriority claims, or other rights arising under Sections 507(b) and 552 of the Bankruptcy Code.

"***Credit Documents***" means, collectively, the CRG Documents and the A/R Facility Documents.

"***Enforcement Action***" means, with respect to any Creditor and with respect to any Claim of such Creditor or any item of Collateral in which such Creditor has or claims a security interest, lien, or right of offset, (i) any action, whether judicial or nonjudicial, to repossess, collect, offset, recoup, give notification to third parties with respect to, sell, dispose of, foreclose upon, give notice of sale, disposition, or foreclosure with respect to, or obtain equitable or injunctive relief with respect to, such Claim or Collateral, (ii) any action in connection with any Insolvency Proceeding to protect, defend, enforce or assert rights with respect to such Claim or Collateral, including without limitation filing and defending any proof of claim, opposing or joining in the opposition of any sale of assets or confirmation of a plan of reorganization, or opposing or joining in the opposition of any proposed debtor-in-possession loan or use of cash collateral, and (iii) the filing of, or the joining in the filing of, an involuntary bankruptcy or insolvency proceeding against any Obligor.

"***Intellectual Property***" means, collectively, all copyrights, copyright registrations and applications for copyright registrations, including all renewals and extensions thereof, all rights to recover for past, present or future infringements thereof and all other rights whatsoever accruing thereunder or pertaining thereto (collectively, "***Copyrights***"), all patents and patent applications, including the inventions and improvements described and claimed therein together with the reissues, divisions, continuations, renewals, extensions and continuations in part thereof, all damages and payments for past or future infringements thereof and rights to sue therefor, and all rights corresponding thereto throughout the world and all income, royalties, damages and payments now or hereafter due and/or payable under or with respect thereto (collectively, "***Patents***"), and all trade names, trademarks and service marks, logos, trademark and service mark registrations, and applications for trademark and service mark registrations, including all renewals of trademark and service mark registrations, all rights to recover for all past, present and future infringements thereof and all rights to sue therefor, and all rights corresponding thereto throughout the world (collectively, "***Trademarks***"), together, in each case, with the product lines and goodwill of the business connected with the use of, and symbolized by, each such trade name, trademark and service mark, together with (a) all inventions, processes, production methods, proprietary information, know-how and trade secrets; (b) all licenses or user or other agreements granted to any Obligor with respect to any of the foregoing, in each case whether now or hereafter owned or used; (c) all information, customer lists, identification of suppliers, data, plans, blueprints, specifications, designs, drawings, recorded knowledge, surveys,

engineering reports, test reports, manuals, materials standards, processing standards, performance standards, catalogs, computer and automatic machinery software and programs; (d) all field repair data, sales data and other information relating to sales or service of products now or hereafter manufactured; (e) all accounting information and all media in which or on which any information or knowledge or data or records may be recorded or stored and all computer programs used for the compilation or printout of such information, knowledge, records or data;(f) all licenses, consents, permits, variances, certifications and approvals of governmental agencies now or hereafter held by any Obligor; and (g) all causes of action, claims and warranties now or hereafter owned or acquired by any Obligor in respect of any of the items listed above.

"***Junior Collateral***" means, (i) in the case of [A/R Lender], all Common Collateral consisting of CRG Senior Collateral and (ii) in the case of CRG, all Common Collateral consisting of A/R Facility Senior Collateral.

"***Obligor***" means Borrower, each subsidiary thereof and each other person or entity that provides a guaranty of, or collateral for, any Claim of any Creditor.

"***Proceeds Sweep Period***" means the period beginning on the later to occur of (i) the occurrence of an event of default under any Creditor's Credit Documents and (ii) receipt by the other Creditor of written notice from such Creditor of such event of default, and ending on the date on which such event of default shall have been waived in writing by the Creditor issuing such notice.

"***Senior Collateral***" means, (i) in the case of [A/R Lender], all A/R Facility Senior Collateral and (ii) in the case of CRG, all CRG Senior Collateral.

"***UCC***" means the Uniform Commercial Code of any applicable jurisdiction and, if the applicable jurisdiction shall not have any Uniform Commercial Code, the Uniform Commercial Code as in effect in the State of New York. The following terms have the meanings given to them in the applicable UCC: "account", "chattel paper", "commodity account", "deposit account", "document", "equipment", "general intangible", "instrument", "inventory", "proceeds", "securities account" and "supporting obligations".

2. Lien Subordination. (a) Notwithstanding the respective dates of attachment or perfection of the security interests of CRG and the security interests of [A/R Lender], or any contrary provision of the UCC, or any applicable law or decision, or the provisions of the Credit Documents, and irrespective of whether [A/R Lender] or CRG holds possession of all or any part of the Collateral, (i) all now existing and hereafter arising security interests of [A/R Lender] in any A/R Facility Senior Collateral shall at all times be senior to the security interests of CRG in such A/R Facility Senior Collateral, and (ii) all now existing and hereafter arising security interests of CRG in any CRG Senior Collateral shall at all times be senior to any interests, including any the security interests of [A/R Lender] in such CRG Senior Collateral. Notwithstanding the foregoing, the [A/R Lender] agrees and acknowledges that it shall not receive, and neither the Borrower nor any obligor shall grant, any security interest to the A/R Lender in the CRG Senior Collateral.

(b) Each Creditor hereby:

(i) acknowledges and consents to (A) [Borrower][each Obligor] granting to the other Creditor a security interest in the Common Collateral of such other Creditor, (B) the other Creditor filing any and all financing statements and other documents as reasonably deemed necessary by the other Creditor in order to perfect its security interest in its Common Collateral, and (C) [Borrower's][each Obligor's] entry into the Credit Documents to which the other Creditor is a party.

(ii) acknowledges, agrees and covenants, notwithstanding **Section 2(c)** but subject to **Section 5**, that it shall not contest, challenge or dispute the validity, attachment, perfection, priority or enforceability of the other Creditor's security interest in the Common Collateral, or the validity, priority or enforceability of the other Creditor's Claim. For the avoidance of doubt and notwithstanding anything in this Agreement to the contrary, [A/R Lender] shall not file or join in any motion or pleading in connection with any Insolvency Proceeding or take any other action seeking to recharacterize any Intellectual Property, the proceeds thereof, or any other CRG Senior Collateral or proceeds thereof as A/R Facility Senior Collateral.

(c) Subject to **Section 2(b)(ii)**, the priorities provided for herein with respect to security interests and liens are applicable only to the extent that such security interests and liens are enforceable, perfected and have not been avoided; if a security interest or lien is judicially determined to be unenforceable or unperfected or is judicially avoided with respect to one or more Claims or any part thereof, the priorities provided for herein shall not be available to such security interest or lien to the extent that it is avoided or determined to be unenforceable. Nothing in this **Section 2(c)** affects the operation of any turnover of payment provisions hereof, or of any other agreements among any of the parties hereto.

3. Distribution of Proceeds of Common Collateral. (a) During each Proceeds Sweep Period, all proceeds including proceeds of any sale, exchange, collection, or other disposition of:

(i) A/R Facility Senior Collateral shall be distributed first, to [A/R Lender], in an amount up to the amount of [A/R Lender]'s Claim; then, to CRG, in an amount up to the amount of CRG's Claim;

(ii) CRG Senior Collateral shall be distributed first, to CRG, in an amount up to the amount of CRG's Claim.

(b) In the event that, notwithstanding **Section 3(a)**, either Creditor shall during any Proceeds Sweep Period receive any payment, distribution, security or proceeds constituting its Junior Collateral prior to the indefeasible payment in full of the other Creditor's Claims and termination of all commitments of the other Creditor under its Credit Documents, such Creditor shall hold in trust, for such other Creditor, such payment, distribution, security or proceeds, and shall deliver to such other Creditor, in the form received (with any necessary endorsements or as a court of competent jurisdiction may otherwise direct) such payment, distribution, security or proceeds for application to the other Creditor's Claims in accordance with **Section 3(a)**.

(c) At all times other than during a Proceeds Sweep Period, all proceeds including

proceeds of any sale, exchange, collection, or other disposition of Collateral shall be distributed or applied, as applicable, in accordance with the CRG Documents and the A/R Facility Documents.

(d) Except as expressly set forth herein, nothing in this **Section 3** shall obligate either Creditor (i) to sell, exchange, collect or otherwise dispose of Collateral at any time, or (ii) to take any action in violation of any stay imposed in connection with any Insolvency Proceeding, including without limitation the automatic stay in Section 362(a) of the Bankruptcy Code, nor shall either Creditor have any liability to the other arising from or in connection with such Creditor's failure to take such action.

4. Subordination of Remedies. Each Creditor (for purposes of this **Section 4**, the "***Junior Creditor***") agrees, subject to **Section 5**, that, (i) unless and until all Claims of the other Creditor (for purposes of this **Section 4**, the "***Senior Creditor***") have been indefeasibly paid in full and all commitments of the Senior Creditor under its Credit Documents have been terminated, or (ii) until the expiration of a period of 180 days from the date of notice of default under the Senior Creditor's Credit Documents given by the Senior Creditor to the Junior Creditor, whichever is earlier, and whether or not any Insolvency Proceeding has been commenced by or against any Obligor, the Junior Creditor shall not, without the prior written consent of the Senior Creditor, enforce, or attempt to enforce, any rights or remedies under or with respect to any of such Junior Creditor's Junior Collateral, including causing or compelling the pledge or delivery of such Junior Collateral, any attachment of, levy upon, execution against, foreclosure upon or the taking of other action against or institution of other proceedings with respect to any such Junior Collateral, notifying any account debtors of any Obligor, asserting any claim or interest in any insurance with respect to such Junior Collateral, or exercising any rights under any lockbox agreement, account control agreement, landlord waiver or bailee's letter or similar agreement or arrangement with respect to such Junior Collateral, or institute or commence, or join with any person or entity in commencing, any action or proceeding with respect to such rights or remedies (including any action of foreclosure, enforcement, collection or execution and any Insolvency Proceeding involving any Obligor), except that notwithstanding the foregoing, at all times, including during a Proceeds Sweep Period, the Junior Creditor shall be able to exercise its rights under a lockbox agreement or an account control agreement with respect to any deposit account, securities account or commodity account constituting Collateral, including its rights to freeze such account or exercise any rights of offset, provided that any distribution or withdrawal from such account shall be applied in accordance with **Section 3(a)**.

5. Insolvency Proceedings. (a) **Rights Continue**. In the event of any Obligor's insolvency, reorganization or any case, action or proceeding, commenced by or against such Obligor, under any bankruptcy or insolvency law or laws relating to the relief of debtors, including, without limitation, any voluntary or involuntary bankruptcy (including any case commenced under the Bankruptcy Code), insolvency, receivership, liquidation, dissolution, winding-up or other similar statutory or common law proceeding or arrangement involving any Obligor, the readjustment of its liabilities, any assignment for the benefit of its creditors, or any marshalling of its assets or liabilities (each, an "***Insolvency Proceeding***"), (i) this Agreement shall remain in full force and effect in accordance with Section 510(a) of the United States Bankruptcy Code, and (ii) the Collateral shall include, without limitation, all Collateral arising during or after any such Insolvency Proceeding (which Collateral shall be subject to the priorities

set forth in this Agreement).

(b) **Proof of Claim, Sales and Plans**. At any meeting of creditors or in the event of any Insolvency Proceeding, each Creditor shall retain the right to vote, file a proof of claim and otherwise act with respect to its Claims (including the right to vote to accept or reject any plan of partial or complete liquidation, reorganization, arrangement, composition, or extension (a "***Plan***")), provided that (i) neither Creditor shall initiate, prosecute or participate in any claim or action in such Insolvency Proceeding directly or indirectly challenging the enforceability, validity, perfection or priority of the other's Claims, this Agreement, the Credit Documents, or any liens securing the other Creditor's Claims; and (ii) neither Creditor shall propose any Plan or file or join in any motion or pleading in support of any motion or Plan or exercise any other voting rights unless such Plan provides for the treatment of the Creditors' claims in accordance with the terms of **Section 5(g)** and otherwise consistent with the terms of this Agreement, or that would otherwise impair the timely repayment of the other Creditor's Claims in accordance with its terms or impair or impede any rights of the other Creditor.

(c) **Finance and Sale Issues**. (i) If any Obligor shall be subject to any Insolvency Proceeding and a Creditor shall desire to permit the use by such Obligor of cash collateral (as defined in Section 363(a) of the Bankruptcy Code, "***Cash Collateral***") constituting such Creditor's Senior Collateral or to permit any Obligor to obtain financing (including on a priming basis with respect to such Creditor's Senior Collateral), whether from such Creditor or any other third party under Section 362, 363 or 364 of the Bankruptcy Code or any other applicable law (each, a "***Post-Petition Financing***"), then the other Creditor agrees that it shall not oppose or raise any objection to or contest (or join with or support any third party opposing, objecting to or contesting), such use of Cash Collateral or Post-Petition Financing and shall not request adequate protection or any other relief in connection therewith (except as specifically permitted under **Section 5(e)**); *provided, however, that*, notwithstanding the foregoing, either Creditor shall be entitled to oppose, raise objection to, or contest (or join with or support any third party opposing, objecting to, or contesting) any such use of Cash Collateral or Post-Petition Financing if such proposed use of Cash Collateral or Post-Petition Financing would result in any liens on such Creditor's Senior Collateral to be subordinated to or *pari passu* with such Cash Collateral or Post-Petition Financing.

(ii) Each Creditor agrees that it shall raise no objection to, oppose or contest (or join with or support any third party opposing, objecting to or contesting), a sale, revesting or other disposition of any Collateral constituting its Junior Collateral free and clear of its liens or other Claims, whether under Sections 363 or 1141 of the Bankruptcy Code or other applicable law, if the other Creditor has consented to such sale or disposition of such assets; *provided, however, that*, notwithstanding the foregoing and for the avoidance of doubt, either Creditor shall be entitled to oppose, raise objection to, or contest (or join with or support any third party opposing, objecting to, or contesting) any sale, revesting or other disposition of any Collateral constituting its Senior Collateral free and clear of its liens or other Claims.

(d) **Relief from the Automatic Stay**. Each Creditor agrees that, until the other Creditor's Claims have been indefeasibly paid in full, such Creditor shall not seek relief, pursuant to Section 362(d) of the Bankruptcy Code or otherwise, from the automatic stay of Section 362(a) of the Bankruptcy Code or from any other stay in any Insolvency Proceeding in

respect of its Junior Collateral without the prior written consent of such other Creditor.

(e) **Adequate Protection**. [A/R Lender] agrees that it shall not:

(i) oppose, object to or contest (or join with or support any third party opposing, objecting to or contesting) (A) any request by CRG for adequate protection in any Insolvency Proceeding (or any granting of such request), or (B) any objection by CRG to any motion, relief, action or proceeding based on such Senior Creditor claiming a lack of adequate protection; or

(ii) seek or accept any form of adequate protection under any of Sections 362, 363 and/or 364 of the Bankruptcy Code with respect to the Collateral, except to the extent that, in the sole discretion of CRG, the receipt by [A/R Lender] of any such adequate protection would not reduce (or would not have the effect of reducing) or adversely affect the adequate protection that CRG otherwise would be entitled to receive, it being understood that, in any event, (y) no adequate protection shall be requested or accepted by [A/R Lender] unless CRG is satisfied in its sole discretion with the adequate protection afforded to CRG, and (z) any such adequate protection is in the form of a replacement lien on the Obligors' assets, which lien shall be subordinated to the liens securing CRG's Claims (including any replacement liens granted in respect of CRG's Claims) and any Post-Petition Financing (and all obligations relating thereto) on the same basis as the other liens securing [A/R Lender]'s Claims are so subordinated to the liens securing CRG's Claims as set forth in this Agreement.

(f) **Post-Petition Interest**. Each Creditor shall not oppose or seek to challenge any claim by the other Creditor for allowance in any Insolvency Proceeding of Claims consisting of post-petition interest, fees or expenses, provided that the treatment of such Claims are consistent with the Creditors' relative priorities set forth in this Agreement.

(g) **Separate Class**. Without limiting anything to the contrary contained herein or in the Credit Documents, each Creditor acknowledges and agrees that (i) the grants of liens pursuant to the CRG Documents and the A/R Facility Documents constitute two separate and distinct grants of liens, and (ii) because of, among other things, their differing rights in the Collateral, each Creditor's Claims are fundamentally different from the other's Claims and must be separately classified in any Plan proposed or adopted in an Insolvency Proceeding. To further effectuate the intent of the parties as provided in the immediately preceding sentence, if it is held that the respective Claims of the Creditors in respect of the Collateral constitute only one secured claim (rather than separate classes of senior and junior secured claims), then each Creditor hereby acknowledges and agrees (x) that all distributions shall be made as if there were separate classes of senior and junior secured claims against the Obligors in respect of the Collateral, and (y) to turn over to the other Creditor amounts otherwise received or receivable by it in the manner described in **Section 3(b)** to the extent necessary to effectuate the intent of this sentence.

(h) **Waiver**. Each Creditor waives any claim it may hereafter have against the other Creditor arising out of the election by such other Creditor of the application to the claims of such other Creditor of Section 1111(b)(2) of the Bankruptcy Code, and/or out of any Cash Collateral or Post-Petition Financing arrangement or out of any grant of a lien in connection with the Collateral in any Insolvency Proceeding.

6. **Notice of Default**. Each Creditor shall give to the other prompt written notice of the occurrence of any default or event of default (which has not been promptly waived or cured) under any of its Credit Documents of which it has knowledge (and any subsequent cure or waiver thereof) and shall, simultaneously with giving any notice of default or acceleration to Borrower, provide to the other Creditor a copy of such notice of default. [A/R Lender] acknowledges and agrees that any event of default under the A/R Facility Documents shall be deemed to be an event of default under the CRG Documents. For the avoidance of doubt, nothing in this **Section 6** shall obligate either Creditor to provide any notice in violation of any stay imposed in connection with any Insolvency Proceeding, including without limitation the automatic stay in Section 362(a) of the Bankruptcy Code, nor shall either Creditor have any liability to the other arising from or in connection with such Creditor's failure to take such action.

7. **Release of Liens**. In the event of any private or public sale or other disposition, by or with the consent of any Creditor (for purposes of this **Section 7**, the "***Senior Creditor***"), of all or any portion of such Creditor's Senior Collateral, the other Creditor (for purposes of this **Section 7**, the "***Junior Creditor***") agrees that such sale or disposition shall be free and clear of such Junior Creditor's liens, provided that such sale or disposition is made in accordance with the UCC or applicable provisions of the Bankruptcy Code, including without limitation Sections 363(f) or 1141(c) of the Bankruptcy Code. The Junior Creditor agrees that, in connection with any such sale or other disposition, (i) the Senior Creditor is authorized to file any and all UCC and other applicable lien releases and/or terminations in respect of the liens held by the Junior Creditor in connection with such a sale or other disposition, and (ii) it shall execute any and all lien releases or other documents reasonably requested by the Senior Creditor in connection therewith.

8. **Attorney-In-Fact**. Until the CRG Claims have been fully paid in cash and CRG's arrangements to lend any funds to the Obligors have been terminated, [A/R Lender] irrevocably appoints CRG as [A/R Lender]'s attorney-in-fact, and grants to CRG a power of attorney with full power of substitution (which power of attorney is coupled with an interest), in the name of [A/R Lender] or in the name of CRG, for the use and benefit of CRG, without notice to [A/R Lender], to perform at CRG's option the following acts in any bankruptcy, insolvency or similar proceeding involving Borrower:

(a) To file the appropriate claim or claims in respect of the [A/R Lender] Claims on behalf of [A/R Lender] if [A/R Lender] does not do so prior to 30 days before the expiration of the time to file claims in such proceeding and if CRG elects, in its sole discretion, to file such claim or claims; and

(b) To accept or reject any plan of reorganization or arrangement on behalf of [A/R Lender] and to otherwise vote [A/R Lender]'s claims in respect of any [A/R Lender] Claim in any manner that CRG deems appropriate for the enforcement of its rights hereunder.

9. **Agent for Perfection**. (a) [A/R Lender] acknowledges that applicable provisions of the UCC may require, in order to properly perfect CRG's security interest in the Common Collateral securing the CRG Claims, that CRG possess certain of such Common Collateral, and may require the execution of control agreements in favor of CRG concerning such Common

Collateral. In order to help ensure that CRG's security interest in such Common Collateral is properly perfected (but subject to and without waiving the other provisions of this Agreement), [A/R Lender] agrees to hold both for itself and, solely for the purposes of perfection and without incurring any duties or obligations to CRG as a result thereof or with respect thereto, for the benefit of CRG, any such Common Collateral, and agrees that CRG's lien in such Common Collateral shall be deemed perfected in accordance with applicable law.

(b) CRG acknowledges that applicable provisions of the UCC may require, in order to properly perfect [A/R Lender]'s security interest in the Common Collateral securing the [A/R Lender] Claims, that [A/R Lender] possess certain of such Common Collateral, and may require the execution of control agreements in favor of [A/R Lender] concerning such Common Collateral. In order to help ensure that [A/R Lender]'s security interest in such Common Collateral is properly perfected (but subject to and without waiving the other provisions of this Agreement), CRG agrees to hold both for itself and, solely for the purposes of perfection and without incurring any duties or obligations to [A/R Lender] as a result thereof or with respect thereto, for the benefit of [A/R Lender], any such Common Collateral, and agrees that [A/R Lender]'s lien in such Common Collateral shall be deemed perfected in accordance with applicable law

10. Credit Documents. (a) Each Creditor represents and warrants that it has provided to the other true, correct and complete copies of all Credit Documents which relate to its credit agreement.

(b) At any time and from time to time, without notice to the other Creditor, each Creditor may take such actions with respect to its Claims as such Creditor, in its sole discretion, may deem appropriate, including, without limitation, terminating advances under its Credit Documents, increasing the principal amount, extending the time of payment, increasing applicable interest to the default rate, renewing, compromising or otherwise amending the terms of any documents affecting its Claims and any Collateral therefor, and enforcing or failing to enforce any rights against Borrower or any other person, and no such action or inaction described in this sentence shall impair or otherwise affect such Creditor's rights hereunder; *provided*, *however,* that (i) neither Creditor shall take any action that is inconsistent with the provisions of this Agreement, and (ii) [A/R Lender] shall not increase the portion of [A/R Lender]'s Claim consisting of principal to an amount in excess of $[___] without the prior written consent of CRG. Each Creditor waives the benefits, if any, of any statutory or common law rule that may permit a subordinating creditor to assert any defenses of a surety or guarantor, or that may give the subordinating creditor the right to require a senior creditor to marshal assets, and each Creditor agrees that it shall not assert any such defenses or rights.

(c) Each Creditor agrees that any other Creditor may release or refrain from enforcing its security interest in the Collateral, or permit the use or consumption of such Collateral by any Obligor free of the other Creditor's security interest, without incurring any liability to any other Creditor.

11. Waiver of Right to Require Marshaling. Each Creditor hereby expressly waives any right that it otherwise might have to require any other Creditor to marshal assets or to resort to Collateral in any particular order or manner, whether provided for by common law or statute. No

Creditor shall be required to enforce any guaranty or any security interest or lien given by any person or entity as a condition precedent or concurrent to the taking of any Enforcement Action with respect to the Collateral.

12. Representations and Warranties. Each Creditor represents and warrants to the other that:

(a) all action on the part of such Creditor, its officers, directors, partners, members and shareholders, as applicable, necessary for the authorization of this Agreement and the performance of all obligations of such Creditor hereunder has been taken;

(b) this Agreement constitutes the legal, valid and binding obligation of such Creditor, enforceable against such Creditor in accordance with its terms;

(c) the execution, delivery and performance of and compliance with this Agreement by such Creditor will not (i) result in any material violation or default of any term of any of such Creditor's charter, formation or other organizational documents (such as Articles or Certificate of Incorporation, bylaws, partnership agreement, operating agreement, etc.) or (ii) violate any material applicable law, rule or regulation.

13. Disgorgement. (a) If, at any time after payment in full of the [A/R Lender] Claims any payments of the [A/R Lender] Claims must be disgorged by [A/R Lender] for any reason (including, without limitation, any Insolvency Proceeding), this Agreement and the relative rights and priorities set forth herein shall be reinstated as to all such disgorged payments as though such payments had not been made and CRG shall immediately pay over to [A/R Lender] all money or funds received or retained by CRG with respect to the CRG Claims to the extent that such receipt or retention would have been prohibited hereunder.

(b) If, at any time after payment in full of the CRG Claims any payments of the CRG Claims must be disgorged by CRG for any reason (including, without limitation, any Insolvency Proceeding), this Agreement and the relative rights and priorities set forth herein shall be reinstated as to all such disgorged payments as though such payments had not been made and [A/R Lender] shall immediately pay over to CRG all money or funds received or retained by [A/R Lender] with respect to the [A/R Lender] Claims to the extent that such receipt or retention would have been prohibited hereunder.

14. Successors and Assigns. This Agreement shall bind any successors or assignees of each Creditor. This Agreement shall remain effective until all Claims are indefeasibly paid or otherwise satisfied in full and Creditors have no commitment to extend credit under the Credit Documents. This Agreement is solely for the benefit of the Creditors and not for the benefit of Borrower or any other party. Each Creditor shall not sell, assign, pledge, dispose of or otherwise transfer all or any portion of its Claims or any of its Credit Documents or any interest in any Common Collateral unless, prior to the consummation of any such action, the transferee thereof shall execute and deliver to the other Creditor an agreement of such transferee to be bound hereby, or an agreement substantially identical to this Agreement providing for the continued subjection of such Claims, the interests of the transferee in the Collateral and the remedies of the transferee with respect thereto as provided herein with respect to the transferring Creditor and for

the continued effectiveness of all of the other rights of the other Creditor arising under this Agreement, in each case in form satisfactory to the other Creditor.

15. **Further Assurances**. Each Creditor hereby agrees to execute such documents and/or take such further action as the other Creditor may at any time or times reasonably request in order to carry out the provisions and intent of this Agreement, including, without limitation, ratifications and confirmations of this Agreement from time to time hereafter, as and when requested by the other Creditor.

16. **Counterparts**. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original and all of which together shall constitute one instrument.

17. **Governing Law; Waiver of Jury Trial**. (a) This Agreement and the rights and obligations of the parties hereunder shall be governed by, and construed in accordance with, the law of the State of New York without regard to principles of conflicts of laws that would result in the application of the laws of any other jurisdiction.

(b) EACH CREDITOR WAIVES ITS RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF THIS AGREEMENT OR ANY OF THE TRANSACTIONS CONTEMPLATED HEREIN.

18. **Entire Agreement**. This Agreement represents the entire agreement with respect to the subject matter hereof, and supersedes all prior negotiations, agreements and commitments. Each Creditor is not relying on any representations by the other Creditor, Borrower or any other Obligor in entering into this Agreement, and each Creditor has kept and will continue to keep itself fully apprised of the financial and other condition of each Obligor. This Agreement may be amended only by written instrument signed by the Creditors.

19. **Relationship among Creditors**. The relationship among the Creditors is, and at all times shall remain solely that of Creditors. Creditors shall not under any circumstances be construed to be partners or joint venturers of one another; nor shall the Creditors under any circumstances be deemed to be in a relationship of confidence or trust or a fiduciary relationship with one another, or to owe any fiduciary duty to one another. Creditors do not undertake or assume any responsibility or duty to one another to select, review, inspect, supervise, pass judgment upon or otherwise inform each other of any matter in connection with any Obligor’s property, any Collateral held by any Creditor or the operations of any Obligor. Each Creditor shall rely entirely on its own judgment with respect to such matters, and any review, inspection, supervision, exercise of judgment or supply of information undertaken or assumed by any Creditor in connection with such matters is solely for the protection of such Creditor.

20. **Severability**. Any provision of this Agreement which is illegal, invalid, prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent such illegality, invalidity, prohibition or unenforceability without invalidating or impairing the remaining provisions hereof or affecting the validity or enforceability of such provision in any other jurisdiction.

21. **Notices**. All notices, demands, instructions and other communications required or permitted to be given to or made upon any party hereto shall be in writing and shall be delivered

or sent by first-class mail, postage prepaid, or by overnight courier or messenger service or by facsimile, message confirmed, and shall be deemed to be effective for purposes of this Agreement on the day that delivery is made or refused. Unless otherwise specified in a notice mailed or delivered in accordance with the foregoing sentence, notices, demands, instructions and other communications in writing shall be given to or made upon the respective parties hereto at their respective addresses and facsimile numbers indicated on the signature pages hereto.

[Signature pages follow.]

IN WITNESS WHEREOF, the undersigned have executed this Intercreditor Agreement as of the date first above written.

[A/R Lender]:

[INSERT NAME OF A/R LENDER]

By _____
Name: [_____]
Title: [_____]

Address for Notices:

[_____]
[_____]
[_____]
Tel: [_____]
Email: [_____]

CRG:

CRG PARTNERS III L.P.
By CRG PARTNERS III GP L.P., its General Partner
By CRG PARTNERS III GP LLC, its General Partner

By _____
Name:
Title:

Address for Notices:

1000 Main Street, Suite 2500
Houston, TX 77002
Attn: General Counsel
Tel.: 713.209.7350
Fax: 713.209.7351
Email: adorenbaum@crglp.com

CRG PARTNERS III - PARALLEL FUND "A" L.P.
By GRG PARTNERS III - PARALLEL FUND "A" GP L.P., its General Partner
By CRG PARTNERS III GP LLC, its General Partner

By _____
Name:
Title:

Address for Notices:

1000 Main Street, Suite 2500
Houston, TX 77002
Attn: General Counsel
Tel.: 713.209.7350
Fax: 713.209.7351
Email: adorenbaum@crglp.com

CRG PARTNERS III - PARALLEL FUND
"B" (CAYMAN) L.P.
By CRG PARTNERS III (CAYMAN) GP L.P.,
its General Partner
By CRG PARTNERS III GP LLC, its
General Partner

By _____
Name:
Title:
WITNESS:
Name:

Address for Notices:

1000 Main Street, Suite 2500
Houston, TX 77002
Attn: General Counsel
Tel.: 713.209.7350
Fax: 713.209.7351
Email: adorenbaum@crglp.com

CRG PARTNERS III (CAYMAN) L.P.
By CRG PARTNERS III (CAYMAN) GP L.P.,
its General Partner
By CRG PARTNERS III GP LLC, its
General Partner

By _____
Name:
Title:
WITNESS:
Name:

Address for Notices:

1000 Main Street, Suite 2500
Houston, TX 77002
Attn: General Counsel
Tel.: 713.209.7350
Fax: 713.209.7351
Email: adorenbaum@crglp.com

Acknowledged and Agreed to:

BORROWER:

SILK ROAD MEDICAL, INC.

By: _____
Name:
Title:

Address for Notices:

735 N Pastoria Ave
Sunnyvale, CA 94085
Attn: Chief Financial Officer
Tel: [_____]
Fax: [_____]
Email: [_____]

Execution Copy

AMENDMENT NO. 1 TO TERM LOAN AGREEMENT

THIS AMENDMENT NO. 1 TO TERM LOAN AGREEMENT, dated as of January 3, 2017 (this "***Amendment***") is made among Silk Road Medical, Inc., a Delaware corporation ("***Borrower***"), and the Lenders party hereto with respect to the Term Loan Agreement.

RECITALS

WHEREAS, the Borrower, the Subsidiary Guarantors from time to time party thereto, and the lenders from time to time party thereto (each a "***Lender***" and, collectively, the "***Lenders***") are parties to a Term Loan Agreement, dated as of October 13, 2015 (as amended, restated, modified or otherwise supplemented from time to time, the "***Loan Agreement***").

WHEREAS, the parties hereto desire to amend the Term Loan Agreement on the terms and subject to the conditions set forth herein.

AGREEMENT

NOW, THEREFORE, in consideration of the mutual agreements, provisions and covenants contained herein, the parties agree as follows:

SECTION 1. Definitions; Interpretation.

(a) **Terms Defined in Loan Agreement**. All capitalized terms used in this Amendment (including in the recitals hereof) and not otherwise defined herein shall have the meanings assigned to them in the Loan Agreement.

(b) **Interpretation**. The rules of interpretation set forth in **Section 1.03** of the Loan Agreement shall be applicable to this Amendment and are incorporated herein by this reference.

SECTION 2. Amendments to Term Loan Agreement. Subject to **Section 3**, the Loan Agreement is hereby amended as follows:

(a) The definition of "**Commitment Period**" is amended and restated in its entirety as follows:

"***Commitment Period***" means the period from and including the first date on which all the conditions precedents set forth in **Section 6.01** has been satisfied (or waived by the Lenders) and through and including April 28, 2017.

(b) **Section 6.02(b)** is amended and restated in its entirety as follows:

(b) **Amount of Borrowing**. The amount of such Borrowing shall equal $5,000,000 or $10,000,000, at Borrower's option.

(c) **Sections 6.02(c)**, **(d)** and **(e)** are deleted in their entirety.

(c) **Section 8.16** shall be added as follows:

Section 8.16 Additional Financing. If Borrower elects to borrow a subsequent Borrowing pursuant to **Section 6.02**, Borrower shall (a) prior to or on September 30, 2017, (i) consummate a Qualified Financing from existing investors, Warburg Pincus and Vertical Group Inc. (including their affiliated funds) resulting in net cash proceeds to Borrower of at least the principal amount Borrower borrowed pursuant to **Section 6.02** and (ii) deliver to the Lenders a notice certifying satisfaction of the condition set forth in this **Section 8.16(a)** and (b) promptly deliver any documentation related to such Qualified Financing as is reasonably requested by Lenders so long as such request is received by the Borrower within two (2) Business Days after Lenders' receipt of the notice pursuant to **Section 8.16(a)(ii)**.

(d) **Section 11.01(d)** shall be amended and restated in its entirety as follows:

(d) any Obligor shall fail to observe or perform any covenant, condition or agreement contained in **Section 8.01** (and such failure continues unremedied for five (5) days), **Section 8.02** (and such failure continues unremedied for five (5) days), **Sections 8.03(a)** (with respect to Borrower's existence), **8.11**, **8.12(a)** or **(b)**, **8.14**, **8.16(a)**, **9** or **10.**

SECTION 3. Conditions of Effectiveness. The effectiveness of **Section 2** shall be subject to the following conditions precedent:

(a) Borrower and all of the Lenders shall have duly executed and delivered this Amendment pursuant to **Section 12.04** of the Loan Agreement; provided, however, that this Amendment shall have no binding force or effect unless all conditions set forth in this **Section 3** have been satisfied;

(b) No Default or Event of Default under the Loan Agreement shall have occurred and be continuing; and

(c) The Borrower shall have paid or reimbursed Lenders for Lenders' reasonable out of pocket costs and expenses incurred in connection with this Amendment and invoiced to the Borrower, including Lenders' reasonable and documented out of pocket legal fees and costs, pursuant to **Section 12.03(a)(i)(z)** of the Loan Agreement.

SECTION 4. Representations and Warranties; Reaffirmation.

(a) The Borrower hereby represents and warrants to each Lender as follows:

(i) The Borrower has full power, authority and legal right to make and perform this Amendment. This Amendment is within the Borrower's corporate powers and has

been duly authorized by all necessary corporate and, if required, by all necessary shareholder action. This Amendment has been duly executed and delivered by the Borrower and constitutes a legal, valid and binding obligation of the Borrower, enforceable against the Borrower in accordance with its terms, except as such enforceability may be limited by (a) bankruptcy, insolvency, reorganization, moratorium or similar laws of general applicability affecting the enforcement of creditors' rights and (b) the application of general principles of equity (regardless of whether such enforceability is considered in a proceeding in equity or at law). This Amendment (x) does not require any consent or approval of, registration or filing with, or any other action by, any Governmental Authority or any third party, except for such as have been obtained or made and are in full force and effect, (y) will not violate any applicable law or regulation or the charter, bylaws or other organizational documents of the Borrower and its Subsidiaries or any order of any Governmental Authority, other than any such violations that, individually or in the aggregate, could not reasonably be expected to have a Material Adverse Effect, (z) will not violate or result in an event of default under any material indenture, agreement or other instrument binding upon the Borrower and its Subsidiaries or assets, or give rise to a right thereunder to require any payment to be made by any such Person.

(ii) No Default has occurred or is continuing or will result after giving effect to this Amendment.

(iii) The representations and warranties made by or with respect to the Borrower in **Section 7** of the Loan Agreement are (A) in the case of representations qualified by "materiality," "Material Adverse Effect" or similar language, true and correct in all respects and (B) in the case of all other representations and warranties, true and correct in all material respects (except that the representation regarding representations and warranties that refer to a specific earlier date are true and correct on the basis set forth above as of such earlier date), in each case taking into account any changes made to schedules updated in accordance with **Section 7.21** of the Loan Agreement or attached hereto.

(iv) There has been no Material Adverse Effect since the date of the Loan Agreement.

(b) The Borrower hereby ratifies, confirms, reaffirms, and acknowledges its obligations under the Loan Documents to which it is a party and agrees that the Loan Documents remain in full force and effect, undiminished by this Amendment, except as expressly provided herein. By executing this Amendment, the Borrower acknowledges that it has read, consulted with its attorneys regarding, and understands, this Amendment.

SECTION 5. GOVERNING LAW; SUBMISSION TO JURISDICTION; WAIVER OF JURY TRIAL.

(a) **Governing Law**. This Amendment and the rights and obligations of the parties hereunder shall be governed by, and construed in accordance with, the law of the State of New York, without regard to principles of conflicts of laws that would result in the application of the laws of any other jurisdiction; *provided that* Section 5-1401 of the New York General Obligations Law shall apply.

(b) **Submission to Jurisdiction**. The Borrower agrees that any suit, action or proceeding with respect to this Amendment or any other Loan Document to which it is a party or any judgment entered by any court in respect thereof may be brought initially in the federal or state courts in Houston, Texas or in the courts of its own corporate domicile and irrevocably submits to the non-exclusive jurisdiction of each such court for the purpose of any such suit, action, proceeding or judgment. This **Section 6** is for the benefit of the Lenders only and, as a result, no Lender shall be prevented from taking proceedings in any other courts with jurisdiction. To the extent allowed by applicable Laws, the Lenders may take concurrent proceedings in any number of jurisdictions.

(c) **Waiver of Jury Trial**. THE BORROWER AND EACH LENDER HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY SUIT, ACTION OR PROCEEDING ARISING OUT OF OR RELATING TO THIS AMENDMENT, THE OTHER LOAN DOCUMENTS OR THE TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY.

SECTION 6. Miscellaneous.

(a) **No Waiver**. Nothing contained herein shall be deemed to constitute a waiver of compliance with any term or condition contained in the Loan Agreement or any of the other Loan Documents or constitute a course of conduct or dealing among the parties. Except as expressly stated herein, the Lenders reserve all rights, privileges and remedies under the Loan Documents. Except as amended hereby, the Loan Agreement and other Loan Documents remain unmodified and in full force and effect. All references in the Loan Documents to the Loan Agreement shall be deemed to be references to the Loan Agreement as amended hereby.

(b) **Severability**. In case any provision of or obligation under this Amendment shall be invalid, illegal or unenforceable in any jurisdiction, the validity, legality and enforceability of the remaining provisions or obligations, or of such provision or obligation in any other jurisdiction, shall not in any way be affected or impaired thereby.

(c) **Headings**. Headings and captions used in this Amendment (including the Exhibits, Schedules and Annexes hereto, if any) are included for convenience of reference only and shall not be given any substantive effect.

(d) **Integration**. This Amendment constitutes a Loan Document and, together with the other Loan Documents, incorporates all negotiations of the parties hereto with respect to the subject matter hereof and is the final expression and agreement of the parties hereto with respect to the subject matter hereof.

(e) **Counterparts**. This Amendment may be executed in any number of counterparts, all of which taken together shall constitute one and the same instrument and any of the parties hereto may execute this Amendment by signing any such counterpart.

(f) **Controlling Provisions**. In the event of any inconsistencies between the provisions of this Amendment and the provisions of any other Loan Document, the provisions of this Amendment shall govern and prevail. Except as expressly modified by this Amendment, the Loan Documents shall not be modified and shall remain in full force and effect.

IN WITNESS WHE REOF, the parties hereto have duly executed this Amendm ent, as of the date first above written.

BORROWER:

SILK ROAD MEDICAL, INC.

By: /s/ Erica Rogers
Name: Erica Togers
Title: President and CEO

[Signature page to Amendment to Term Loan Agreement (Silk Road)]

LENDERS:

CRG PARTNERS III L.P.

By CRG PARTNERS III GP L.P.,
its General Partner

By CRG PARTNERS III GP LLC,
its General Partner

By: _____

Name: Nathan Hukill

Title: Authorized Signatory

Address for Notices:

1000 Main Street, Suite 2500
Houston, TX 77002
Attn: General Counsel
Tel.: 713.209.7350
Fax: 713.209.7351Email: adorenbaum@crglp.com

CRG PARTNERS III – PARALLEL FUND "A" L.P.

By CRG PARTNERS III – PARALLEL FUND
"A" GP L.P., its General Partner

By CRG PARTNERS III GP LLC,
its General Partner

By: _____

Name: Nathan Hukill

Title: Authorized Signatory

Address for Notices:

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Houston, TX 77002
Attn: General Counsel
Tel.: 713.209.7350
Fax: 713.209.7351
Email: adorenbaum@crglp.com

CRG PARTNERS III – PARALLEL FUND "B" (CAYMAN) L.P.

By CRG PARTNERS III (CAYMAN) GP L.P.,
its General Partner

By CRG PARTNERS III GP LLC,
its General Partner

By: _____

Name: Nathan Hukill
Title: Authorized Signatory

WITNESS:

Name:

Address for Notices:

1000 Main Street, Suite 2500
Houston, TX 77002
Attn: General Counsel
Tel.: 713.209.7350
Fax: 713.209.7351Email: adorenbaum@crglp.com

CRG PARTNERS III(CAYMAN) L.P.

By CRG PARTNERS III (CAYMAN) GP L.P.,
its General Partner

By CRG PARTNERS III GP LLC,
its General Partner

By: _____

Name: Nathan Hukill
Title: Authorized Signatory

WITNESS:

Name:

Address for Notices:

1000 Main Street, Suite 2500
Houston, TX 77002
Attn: General Counsel
Tel.: 713.209.7350
Fax: 713.209.7351
Email: adorenbaum@crglp.com

AMENDMENT NO. 2 TO TERM LOAN AGREEMENT

THIS AMENDMENT NO. 2 TO TERM LOAN AGREEMENT,, dated as of June 22,2017 (this ***"Amendment')*** is made among Silk Road Medical, Inc., a Delaware corporation ***("Borrower"),*** and the Lenders party hereto with respect to the Term Loan Agreement.

RECITALS

WHEREAS, the Borrower, the Subsidiary Guarantors from time to time party thereto, and the lenders from time to time party thereto (each a ***"Lender"*** and, collectively, the ***"Lenders")*** are parties to a Term Loan Agreement, dated as of October 13, 2015 (as amended by Amendment No. 1 to Term Loan Agreement, dated as of January 3, 2017 and as further, restated, modified or otherwise supplemented from time to time, the ***"Loan Agreement').***

WHEREAS, the parties hereto desire to amend the Term Loan Agreement on the terms and subject to the conditions set forth herein.

AGREEMENT

NOW, THEREFORE, in consideration of the mutual agreements, provisions and covenants contained herein, the parties agree as follows:

SECTION 1. Definitions; Interpretation.

(a) **Terms Defined in Loan Agreement.** All capitalized terms used in this Amendment (including in the recitals hereof) and not otherwise defined herein shall have the meanings assigned to them in the Loan Agreement.

(b) **Interpretation.** The rules of interpretation set forth in **Section 1.03** of the Loan Agreement shall be applicable to this Amendment and are incorporated herein by this reference.

SECTION 2. Amendment to Term Loan Agreement. Subject to **Section 3, Section 8.0l(b)** of the Loan Agreement is hereby amended and restated as follows:

(b) as soon as available and in any event within (i) 180 days after the end of each fiscal year of Borrower (commencing with the fiscal year ending December 31, 2015, but excluding the fiscal year ended December 31, 2016) or (ii) on or prior to August 31, 2017 with respect to the fiscal year ended December 31, 2016, the consolidated and (if prepared by Borrower) consolidating balance sheets of Borrower and its Subsidiaries as of the end of such fiscal year, and the related consolidated and (if prepared by Borrower) consolidating statements of income, shareholders' equity and cash flows of Borrower and its Subsidiaries for such fiscal year, prepared in accordance with GAAP consistently applied, all in reasonable detail and setting forth (in the case of consolidated financial statements) in comparative form the figures for the previous fiscal year, accompanied by a report and opinion on such consolidated financial statements of PricewaterhouseCoopers LLP or another firm of independent certified public accountants of recognized national

standing reasonably acceptable to the Lenders, which report and opinion shall be prepared in accordance with generally accepted auditing standards and shall not be subject to any qualification or exception as to the scope of such audit, and in the case of any prepared consolidating financial statements, certified by a Responsible Officer of Borrower;

SECTION 3. Conditions of Effectiveness. The effectiveness of **Section 2** shall be subject to the following conditions precedent:

(a) Borrower and all of the Lenders shall have duly executed and delivered this Amendment pursuant to **Section 12.04** of the Loan Agreement; provided, however, that this Amendment shall have no binding force or effect unless all conditions set forth in this **Section 3** have been satisfied;

(b) No Default or Event of Default under the Loan Agreement shall have occurred and be continuing; and

(c) The Borrower shall have paid or reimbursed Lenders for Lenders' reasonable out of pocket costs and expenses incurred in connection with this Amendment and invoiced to the Borrower, including Lenders' reasonable and documented out of pocket legal fees and costs, pursuant to **Section 12.03(a)(i)(z)** of the Loan Agreement.

SECTION 4. Representations and Warranties; Reaffirmation.

(a) The Borrower hereby represents and warrants to each Lender as follows:

(i) The Borrower has full power, authority and legal right to make and perform this Amendment. This Amendment is within the Borrower's corporate powers and has been duly authorized by all necessary corporate and, if required, by all necessary shareholder action. This Amendment has been duly executed and delivered by the Borrower and constitutes a legal, valid and binding obligation of the Borrower, enforceable against the Borrower in accordance with its terms, except as such enforceability may be limited by (a) bankruptcy, insolvency, reorganization, moratorium or similar laws of general applicability affecting the enforcement of creditors' rights and (b) the application of general principles of equity (regardless of whether such enforceability is considered in a proceeding in equity or at law). This Amendment (x) does not require any consent or approval of, registration or filing with, or any other action by, any Governmental Authority or any third party, except for such as have been obtained or made and are in full force and effect, (y) will not violate any applicable law or regulation or the charter, bylaws or other organizational documents of the Borrower and its Subsidiaries or any order of any Governmental Authority, other than any such violations that, individually or in the aggregate, could not reasonably be expected to have a Material Adverse Effect, (z) will not violate or result in an event of default under any material indenture, agreement or other instrument binding upon the Borrower and its Subsidiaries or assets, or give rise to a right thereunder to require any payment to be made by any such Person.

(ii) No Default has occurred or is continuing or will result after giving effect to this Amendment.

(iii) The representations and warranties made by or with respect to the Borrower in Section 7 of the Loan Agreement are (A) in the case of representations qualified by "mate riality," "Material Adverse Effect" or similar language, true and correct in all respects and (B) in the case of all other representations and warranties, true and correct in all material respects (except that the representation regarding representations and warranties **t hat** refer to a specific earlier date are true and correct on the basis set forth above as of such earlier date), in each case taking into account any changes made to schedules updated in accordance with **Section 7.21** of the Loan Agreement or attached hereto.

(iv) There has been no Material Adverse Effect since the date of the Loan Agreement.

(b) The Borrower hereby ratifies, confirms, reaffirms, and acknowledges its obligations under the Loan Documents to which it is a party and agrees that the Loan Documents remain in full force and effect, undiminished by this Amendment, except as expressly provided herein. By executing this Amendment, the Borrower acknowledges that it has read, consulted with its attorneys regarding, and understands, this Amendment.

SECTION 5. GOVERNING LAW; S UBMISSION TO JURISDICTION;WAJVER OF JURYTRIAL .

(a) **Governing Law.** This Amendment and the rights and obl igations of the parties hereunder shall be governed by, and construed in accordance with, the law of the State of New York, without regard to principles of conflicts -of laws that would result in the application of the laws of any other jurisdiction; *provided that* Section 5-1401 of the New York General Obligations Law shall apply.

(b) **Submission to Jurisdiction.** The Borrower agrees that any suit, action or proceeding with respect to this Amendment or any other Loan Document to which it is a party or any judgment entered by any court in respect thereof may be brought initially in the federal or state courts in Houston, Texas or in the courts of its own corporate domicile and irrevocably submits to the non-exclusive jurisdiction of each such court for the purpose of any such suit, action, proceeding or judgment. This **Section 6** is for the benefit of the Lenders only and, as a result, no Lender shall be prevented from taking proceedings in any other courts with jurisdiction. To the extent allowed by applicable Laws, the Lenders may take concurrent proceedings in any number of jurisdictions.

(c) **Waiver of Jury Trial.** THE BORROWER AND EACH LENDER HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APP LICABLE LAW, ANY AND ALL RJGHT TO TRIAL BY JURY IN ANY SU IT, ACTION OR PROCEEDING ARJSING OUT OF OR RELATING TO THIS AMENDMENT, THE OTHER LOAN DOCUMENTS OR THE TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY.

SECTION 6. Miscellaneous.

(a) **No Waiver.** Nothing contained herein shall be deemed to constitute a waiver of compliance with any term or condition contained in the Loan Agreement or any of the other Loan Documents or constitute a course of conduct or dealing among the parties. Except as expressly stated herein, the Lenders reserve all rights, privileges and remedies under the Loan

Documents. Except as amended hereby, the Loan Agreement and other Loan Documents remain unmodified and in full force and effect. All references in the Loan Documents to the Loan Agreement shall be deemed to be references to the Loan Agreement as amended hereby.

(b) **Severability.** In case any provision of or obligation under this Amendment shall be invalid, illegal or unenforceable in any jurisdiction, the validity, legality and enforceability of the remaining provisions or obligations, or of such provision or obligation in any other jurisdiction, shall not in any way be affected or impaired thereby.

(c) **Headings.** Headings and captions used in this Amendment (including the Exhibits, Schedules and Annexes hereto, if any) are included for convenience of reference only and shall not be given any substantive effect.

(d) **Integration.** This Amendment constitutes a Loan Document and, together with the other Loan Documents, incorporates all negotiations of the parties hereto with respect to the subject matter hereof and is the final expression and agreement of the parties hereto with respect to the subject matter hereof.

(e) **Counterparts.** This Amendment may be executed in any number of counterparts, all of which taken together shall constitute one and the same instrument and any of the parties hereto may execute this Amendment by signing any such counterpart.

(f) **Controlling Provisions.** In the event of any inconsi stencies between the provisions of this Amendment and the provisions of any other Loan Docum ent, the provisions of this Amendment shall govern and prevail. Except as expressly modified by this Amendment, the Loan Documents shall not be modified and shall remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have duly executed this Amendment, as of the date first above written.

BORROWER:

SILK ROAD MEDICAL, INC.

By: /s/ Erica Rogers
Name: Erica Togers
Title: President & CEP

[Signature page to Amendment to Term Loan Agreement (Silk Road)]

LENDERS:

CRG PARTNERS III L.P.

By CRG PARTNERS III GP L.P.,
its General Partner

By CRG PARTNERS III GP LLC,
itsGeneral Partner

By /s/ Nathan Hukill
Name: Nathan Hukill
Title: Authorized Signatory

Address for Notices:

1000 Main Street, Suite 2500
Houston, TX 77002
Attn: General Counsel
Tel.: 713.209.7350
Fax: 713.209.7351
Email: adorenbaum@crglp.com

CRG PARTNERS III – PARALLEL FUND "A" L.P.

By CRG PARTNERS III – PARALLEL FUND
"A" GP L.P., its General Partner

By CRG PARTNERS III GP LLC,
its General Partner

By /s/ Nathan Hukill
Name: Nathan Hukill
Title: Authorized Signatory

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Fax: 713.209.7351
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CRG PARTNERS III – PARALLEL FUND "B" (CAYMAN) L.P.

By CRG PARTNERS III (CAYMAN) GP L.P.,
its General Partner

By CRG PARTNERS III GP LLC,
its General Partner

By /s/ Nathan Hukill
Name: Nathan Hukill
Title: Authorized Signatory

WITNESS: /s/ Nicole Nesson
Name: Nicole Nesson

Address for Notices:

1000 Main Street, Suite 2500
Houston, TX 77002
Attn: General Counsel
Tel.: 713.209.7350
Fax: 713.209.7351
Email: adorenbaum@crglp.com

CRG PARTNERS III(CAYMAN) L.P.

By CRG PARTNERS III (CAYMAN) GP L.P.,
its General Partner

By CRG PARTNERS III GP LLC,
its General Partner

By /s/ Nathan Hukill
Name: Nathan Hukill
Title: Authorized Signatory

WITNESS: /s/ Nicole Nesson
Name: Nicole Nesson

Address for Notices:

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Fax: 713.209.7351
Email: adorenbaum@crglp.com

AMENDMENT NO. 3 TO TERM LOAN AGREEMENT

THIS AMENDMENT NO. 3 TO TERM LOAN AGREEMENT, dated as of November 30, 2017 (this ***"Amendment')*** is made among Silk Road Medical, Inc., a Delaware corporation ***("Borrower"),*** and the Lenders party hereto with respect to the Term Loan Agreement.

RECITALS

WHEREAS, the Borrower, the Subsidiary Guarantors from time to time party thereto, and the lenders from time to time party thereto (each a ***"Lender"*** and, collectively, the ***"Lenders")*** are parties to a Term Loan Agreement, dated as of October 13 , 2015 (as amended by Amendment No. 1 to Term Loan Agreement, dated as of January 3, 2017, as further amended by Amendment No. 2 to Term Loan Agreement, dated as of June 22, 2017 and as further, restated, modified or otherwise supplemented from time to time, the ***"Loan Agreement').***

WHEREAS, the parties hereto desire to amend the Term Loan Agreement on the terms and subject to the conditions set forth herein.

AGREEMENT

NOW, THEREFORE, in consideration of the mutual agreements, prov1s1ons and covenants contained herein, the parties agree as follows:

SECTION 1. Definitions, Interpretation.

(a) **Terms Defined** in **Loan Agreement.** All capitalized terms used in this Amendment (including in the recitals hereof) and not otherwise defined herein shall have the meanings assigned to them in the Loan Agreement.

(b) **Interpretation.** The rules of interpretation set forth in **Section 1.03** of the Loan Agreement shall be applicable to this Amendment and are incorporated herein by this reference.

SECTION 2. Amendment to Term Loan Agreement. Subject to **Section 3** of this Amendment, Section 9.01(1) of the Loan Agreement is hereby amended and restated as follows:

"(1) Indebtedness up to an aggregate principal amount of $310,000 with respect to letters of credit issued solely to support any lease of real property entered into in the ordinary course of business;"

SECTION 3. Conditions of Effectiveness. The effectiveness of **Section 2** of this Amendment shall be subject to the following conditions precedent:

(a) Borrower and all of the Lenders shall have duly executed and delivered this Amendment pursuant to **Section 12.04** of the Loan Agreement; provided, however, that this Amendment shall have no binding force or effect unless all conditions set forth in this **Section 3** have been satisfied;

(b) No Default or Event of Default under the Loan Agreement shall have occurred and be continuing; and

(c) The Borrower shall have paid or reimbursed Lenders for Lenders' reasonable out of pocket costs and expenses incurred in connection with this Amendment and invoiced to the Borrower, including Lenders' reasonable and documented out of pocket legal fees and costs, pursuant to **Section 12.03(a)(i)(z)** of the Loan Agreement.

SECTION 4. Representations and Warranties; Reaffirmation.

(a) The Borrower hereby represents and warrants to each Lender as follows:

(i) The Borrower has full power, authority and legal right to make and perform this Amendment. This Amendment is within the Borrower's corporate powers and has been duly authorized by all necessary corporate and, if required, by all necessary shareholder action. This Amendment has been duly executed and delivered by the Borrower and constitutes a legal, valid and binding obligation of the Borrower, enforceable against the Borrower in accordance with its terms, except as such enforceability may be limited by (a) bankruptcy, insolvency, reorganization, moratorium or similar laws of general applicability affecting the enforcement of creditors' rights and (b) the application of general principles of equity (regardless of whether such enforceability is considered in a proceeding in equity or at law). This Amendment (x) does not require any consent or approval of, registration or filing with, or any other action by, any Governmental Authority or any third party, except for such as have been obtained or made and are in full force and effect, (y) will not violate any applicable law or regulation or the charter, bylaws or other organizational documents of the Borrower and its Subsidiaries or any order of any Governmental Authority, other than any such violations that, individually or in the aggregate, could not reasonably be expected to have a Material Adverse Effect, (z) will not violate or result in an event of default under any material indenture, agreement or other instrument binding upon the Borrower and its Subsidiaries or assets, or give rise to a right thereunder to require any payment to be made by any such Person.

(ii) No Default has occurred or is continuing or will result after giving effect to this Amendment.

(iii) The representations and warranties made by or with respect to the Borrower in **Section 7** of the Loan Agreement are (A) in the case of representations qualified by "materiality," "Material Adverse Effect" or similar language, true and correct in all respects and (B) in the case of all other representations and warranties, true and correct in all material respects (except that the representation regarding representations and warranties that refer to a specific earlier date are true and correct on the basis set forth above as of such earlier date), in each case taking into account any changes made to schedules updated in accordance with **Section 7.21** of the Loan Agreement or attached hereto.

(iv) There has been no Material Adverse Effect since the date of the Loan Agreement.

(b) The Borrower hereby ratifies, confirms, reaffirms, and acknowledges its obligations under the Loan Documents to which it is a party and agrees that the Loan Documents

remain in full force and effect, undiminished by this Amendment, except as expressly provided herein. By executing this Amendment, the Borrower acknowledges that it has read, consulted with its attorneys regarding, and understands, this Amendment.

(c) Borrower and Lenders hereby acknowledge and agree that upon an event of an acceleration or other mandatory prepayment event, the ***"Redemption Date'"*** for purposes of calculating the Prepayment Premium will be date of such acceleration or **such** obligation to mandatorily prepay arose.

SECTION 5. GOVERNING LAW; SUBMISSION TO JURISDICTION; WAIVER OF JURY TRIAL.

(a) **Governing Law.** This Amendment and the rights and obligations of the parties hereunder shall be governed by, and construed in accordance with, the law of the State of New York, without regard to principles of conflicts of laws that would result in the application of the laws of any other jurisdiction; *provided that* Section 5-1401 of the New York General Obligations Law shall apply.

(b) **Submission to Jurisdiction.** The Borrower agrees that any suit, action or proceeding with respect to this Amendment or any other Loan Document to which it is a party or any judgment entered by any court in respect thereof may be brought initially in the federal or state courts in Houston, Texas or in the courts of its own corporate domicile and irrevocably submits to the non-exclusive jurisdiction of each such court for the purpose of any such suit, action, proceeding or judgment. This **Section 5** is for the benefit of the Lenders only and, as a result, no Lender shall be prevented from taking proceedings in any other courts with jurisdiction. To the extent allowed by applicable Laws, the Lenders may take concurrent proceedings in any number of jurisdictions.

(c) **Waiver of Jury Trial.** THE BORROWER AND EACH LENDER HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY SUIT, ACTION OR PROCEEDING ARISING OUT OF OR RELATING TO THIS AMENDMENT, THE OTHER LOAN DOCUMENTS OR THE TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY.

SECTION 6. Miscellaneous.

(a) **No Waiver.** Nothing contained herein shall be deemed to constitute a waiver of compliance with any term or condition contained in the Loan Agreement or any of the other Loan Documents or constitute a course of conduct or dealing among the parties. Except as expressly stated herein, the Lenders reserve all rights, privileges and remedies under the Loan Documents. Except as amended hereby, the Loan Agreement and other Loan Documents remain unmodified and in full force and effect. All references in the Loan Documents to the Loan Agreement shall be deemed to be references to the Loan Agreement as amended hereby.

(b) **Severability.** In case any provision of or obligation under this Amendment shall be invalid, illegal or unenforceable in any jurisdiction, the validity, legality and enforceability of the remaining provisions or obligations, or of such provision or obligation in any other jurisdiction, shall not in any way be affected or impaired thereby.

(c) **Headings.** Headings and captions used in this Amendment (including the Exhibits, Schedules and Annexes hereto, if any) are included for convenience of reference only and shall not be given any substantive effect.

(d) **Integration.** This Amendment constitutes a Loan Document and, together with the other Loan Documents, incorporates all negotiations of the parties hereto with respect to the subject matter hereof and is the final expression and agreement of the parties hereto with respect to the subject matter hereof.

(e) **Counterparts.** This Amendment may be executed in any number of counterparts, all of which taken together shall constitute one and the same instrument and any of the parties hereto may execute this Amendment by signing any such counterpart. Executed counterparts delivered by facsimile or other electronic transmission (e.g., "PDF" or "TIF") shall be effective as delivery of a manually executed counterpart.

(f) **Controlling Provisions.** In the event of any inconsistencies between the provisions of this Amendment and the provisions of any other Loan Document, the provisions of this Amendment shall govern and prevail. Except as expressly modified by this Amendment, the Loan Documents shall not be modified and shall remain in full force and effect.

[Remainder of page intentionally left blank]

IN WITNESS WHEREOF, the parties hereto have duly executed this Amendment, as of the date first above written.

BORROWER:

SILK ROAD MEDICAL, INC.

By: /s/ Lucas W. Buchanan
Name: Lucas W. Buchanan
Title: CFO

LENDERS:

CRG PARTNERS III L.P.

By CRG PARTNERS III GP L.P.,
its General Partner

By CRG PARTNERS III GP LLC,
its General Partner

By /s/ Nathan Hukill
Name: Nathan Hukill
Title: Authorized Signatory

Address for Notices:

1000 Main Street, Suite 2500
Houston, TX 77002
Attn: General Counsel
Tel.: 713.209.7350
Fax: 713.209.7351
Email: adorenbaum@crglp.com

CRG PARTNERS III – PARALLEL FUND "A" L.P.

By CRG PARTNERS III – PARALLEL FUND "A" GP L.P., its General Partner

By CRG PARTNERS III GP LLC,
its General Partner

By /s/ Nathan Hukill
Name: Nathan Hukill
Title: Authorized Signatory

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Fax: 713.209.7351
Email: adorenbaum@crglp.com

CRG PARTNERS III – PARALLEL FUND "B" (CAYMAN) L.P.

By CRG PARTNERS III (CAYMAN) GP L.P.,
its General Partner

By CRG PARTNERS III GP LLC,
its General Partner

By /s/ Nathan Hukill
Name: Nathan Hukill
Title: Authorized Signatory

WITNESS: /s/ Nicole Nesson
Name: Nicole Nesson

Address for Notices:

1000 Main Street, Suite 2500
Houston, TX 77002
Attn: General Counsel
Tel.: 713.209.7350
Fax: 713.209.7351
Email: adorenbaum@crglp.com

CRG PARTNERS III(CAYMAN) L.P.

By CRG PARTNERS III (CAYMAN) GP L.P.,
its General Partner

By CRG PARTNERS III GP LLC,
its General Partner

By /s/ Nathan Hukill
Name: Nathan Hukill
Title: Authorized Signatory

WITNESS: /s/ Nicole Nesson
Name: Nicole Nesson

Address for Notices:

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Houston, TX 77002
Attn: General Counsel
Tel.: 713.209.7350
Fax: 713.209.7351
Email: adorenbaum@crglp.com

AMENDMENT NO. 4 TO TERM LOAN AGREEMENT

THIS AMENDMENT NO. 4 TO TERM LOAN AGREEMENT, dated as of June 25, 2018 (this ***"Amendment")*** is made among Silk Road Medical, Inc., a Delaware corporation ***("Borrower"),*** and the Lenders party hereto with respect to the Term Loan Agreement.

RECITALS

WHEREAS, the Borrower, the Subsidiary Guarantors from time to time party thereto, and the lenders from time to time party thereto (each a ***"Lender"*** and, collectively, the ***"Lenders")*** are parties to a Term Loan Agreement, dated as of October 13, 2015 (as amended by Amendment No. 1 to Term Loan Agreement, dated as of January 3, 2017, as further amended by Amendment No. 2 to Term Loan Agreement, dated June 22, 2017, as further amended by Amendment No. 3 to Term Loan Agreement, dated November 30, 2017 and as further, restated, modified or otherwise supplemented from time to time, the ***"Loan Agreement").***

WHEREAS, the parties hereto desire to amend the Term Loan Agreement on the terms and subject to the conditions set forth herein.

AGREEMENT

NOW, THEREFORE, in consideration of the mutual agreements, prov1s10ns and covenants contained herein, the parties agree as follows:

SECTION 1. Definitions; Interpretation.

(a) **Terms Defined in Loan Agreement.** All capitalized terms used in this Amendment (including in the recitals hereof) and not otherwise defined herein shall have the meanings assigned to them in the Loan Agreement.

(b) **Interpretation.** The rules of interpretation set forth in **Section 1.03** of the Loan Agreement shall be applicable to this Amendment and are incorporated herein by this reference.

SECTION 2. Amendment to Term Loan Agreement. Subject to **Section 3, Section 8.0l(b)** of the Loan Agreement is hereby amended and restated as follows:

> (b) as soon as available and in any event within (i) 180 days after the end of each fiscal year of Borrower (commencing with the fiscal year ending December 31, 2015, but excluding the fiscal year ended December 31, 2016 and the fiscal year ended December 31, 2017), (ii) on or prior to August 31, 2017 with respect to the fiscal year ended December 31, 2016, or (iii) on or prior to September 1, 2018 with respect to the fiscal year ended December 31, 2017, the consolidated and (if prepared by Borrower) consolidating balance sheets of Borrower and its Subsidiaries as of the end of such fiscal year, and the related consolidated and (if prepared by Borrower) consolidating statements of income, shareholders' equity and cash flows of Borrower and its Subsidiaries for such fiscal year, prepared in accordance with GAAP consistently applied, all in reasonable detail and setting forth (in

the case of consolidated financial statements) in comparative form the figures for the previous fiscal year, accompanied by a report and opinion on such consolidated financial statements of PricewaterhouseCoopers LLP or another firm of independent certified public accountants of recognized national standing reasonably acceptable to the Lenders, which report and opinion shall be prepared in accordance with generally accepted auditing standards and shall not be subject to any qualification or exception as to the scope of such audit, and in the case of any prepared consolidating financial statements, certified by a Responsible Officer of Borrower;

SECTION 3. Conditions of Effectiveness. The effectiveness of **Section 2** shall be subject to the following conditions precedent:

(a) Borrower and all of the Lenders shall have duly executed and delivered this Amendment pursuant to **Section 12.04** of the Loan Agreement; provided, however, that this Amendment shall have no binding force or effect unless all conditions set forth in this **Section 3** have been satisfied;

(b) No Default or Event of Default under the Loan Agreement shall have occurred and be continuing; and

(c) The Borrower shall have paid or reimbursed Lenders for Lenders' reasonable out of pocket costs and expenses incurred in connection with this Amendment and invoiced to the Borrower, including Lenders' reasonable and documented out of pocket legal fees and costs, pursuant to **Section 12.03(a)(i)(z)** of the Loan Agreement.

SECTION 4. Representations and Warranties; Reaffirmation.

(a) The Borrower hereby represents and warrants to each Lender as follows:

(i) The Borrower has full power, authority and legal right to make and perform this Amendment. This Amendment is within the Borrower's corporate powers and has been duly authorized by all necessary corporate and, if required, by all necessary shareholder action. This Amendment has been duly executed and delivered by the Borrower and constitutes a legal, valid and binding obligation of the Borrower, enforceable against the Borrower in accordance with its terms, except as such enforceability may be limited by (a) bankruptcy, insolvency, reorganization, moratorium or similar laws of general applicability affecting the enforcement of creditors' rights and (b) the application of general principles of equity (regardless of whether such enforceability is considered in a proceeding in equity or at law). This Amendment (x) does not require any consent or approval of, registration or filing with, or any other action by, any Governmental Authority or any third party, except for such as have been obtained or made and are in full force and effect, (y) will not violate any applicable law or regulation or the charter, bylaws or other organizational documents of the Borrower and its Subsidiaries or any order of any Governmental Authority, other than any such violations that, individually or in the aggregate, could not reasonably be expected to have a Material Adverse Effect, (z) will not violate or result in an event of default under any material indenture,

agreement or other instrument binding upon the Borrower and its Subsidiaries or assets, or give rise to a right thereunder to require any payment to be made by any such Person.

(ii) No Default has occurred or is continuing or will result after giving effect to this Amendment.

(iii) The representations and warranties made by or with respect to the Borrower in **Section 7** of the Loan Agreement are (A) in the case of representations qualified by "materiality," "Material Adverse Effect" or similar language, true and correct in all respects and (B) in the case of all other representations and warranties, true and correct in all material respects (except that the representation regarding representations and warranties that refer to a specific earlier date are true and correct on the basis set forth above as of such earlier date), in each case taking into account any changes made to schedules updated in accordance with **Section 7.21** of the Loan Agreement or attached hereto.

(iv) There has been no Material Adverse Effect since the date of the Loan Agreement.

(b) The Borrower hereby ratifies, confirms, reaffirms, and acknowledges its obligations under the Loan Documents to which it is a party and agrees that the Lo,m Documents remain in full force and effect, undiminished by this Amendment, except as expressly provided herein. By executing this Amendment, the Borrower acknowledges that it has read, consulted with its attorneys regarding, and understands, this Amendment.

SECTION 5. GOVERNING LAW; SUBMISSION TO JURISDICTION; WAIVER OF JURY TRIAL.

(a) **Governing Law.** This Amendment and the rights and obligations of the parties hereunder shall be governed by, and construed in accordance with, the law of the State of New York, without regard to principles of conflicts of laws that would result in the application of the laws of any other jurisdiction; *provided that* Section 5-1401 of the New York General Obligations Law shall apply.

(b) **Submission to Jurisdiction.** The Borrower agrees that any suit, action or proceeding with respect to this Amendment or any other Loan Document to which it is a party or any judgment entered by any court in respect thereof may be brought initially in the federal or state courts in Houston, Texas or in the courts of its own corporate domicile and irrevocably submits to the non-exclusive jurisdiction of each such court for the purpose of any such suit, action, proceeding or judgment. This **Section 6** is for the benefit of the Lenders only and, as a result, no Lender shall be prevented from taking proceedings in any other courts with jurisdiction. To the extent allowed by applicable Laws, the Lenders may take concurrent proceedings in any number of jurisdictions.

(c) **Waiver of Jury Trial.** THE BORROWER AND EACH LENDER HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY SUIT, ACTION OR PROCEEDING ARISING OUT OF OR RELATING TO THIS AMENDMENT, THE OTHER LOAN DOCUMENTS OR THE TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY.

SECTION 6. Miscellaneous.

(a) **No Waiver.** Nothing contained herein shall be deemed to constitute a waiver of compliance with any term or condition contained in the Loan Agreement or any of the other Loan Documents or constitute a course of conduct or dealing among the parties. Except as expressly stated herein, the Lenders reserve all rights, privileges and remedies under the Loan Documents. Except as amended hereby, the Loan Agreement and other Loan Documents remain unmodified and in full force and effect. All references in the Loan Documents to the Loan Agreement shall be deemed to be references to the Loan Agreement as amended hereby.

(b) **Severability.** In case any provision of or obligation under this Amendment shall be invalid, illegal or unenforceable in any jurisdiction, the validity, legality and enforceability of the remaining provisions or obligations, or of such provision or obligation in any other jurisdiction, shall not in any way be affected or impaired thereby.

(c) **Headings.** Headings and captions used in this Amendment (including the Exhibits, Schedules and Annexes hereto, if any) are included for convenience of reference only and shall not be given any substantive effect.

(d) **Integration.** This Amendment constitutes a Loan Document and, together with the other Loan Documents, incorporates all negotiations of the parties hereto with respect to the subject matter hereof and is the final expression and agreement of the parties hereto with respect to the subject matter hereof.

(e) **Counterparts.** This Amendment may be executed in any number of counterparts, all of which taken together shall constitute one and the same instrument and any of the parties hereto may execute this Amendment by signing any such counterpart.

(f) **Controlling Provisions.** In the event of any inconsistencies between the provisions of this Amendment and the provisions of any other Loan Document, the provisions of this Amendment shall govern and prevail. Except as expressly modified by this Amendment, the Loan Documents shall not be modified and shall remain in full force and effect.

CRG PARTNERS III – PARALLEL FUND "B" (CAYMAN) L.P.

By CRG PARTNERS III (CAYMAN) GP L.P.,
its General Partner

By CRG PARTNERS III GP LLC,
its General Partner

By /s/ Nathan Hukill
Name: Nathan Hukill
Title: Authorized Signatory

WITNESS: /s/ Nicole Nesson
Name: Nicole Nesson

Address for Notices:

1000 Main Street, Suite 2500
Houston, TX 77002
Attn: General Counsel
Tel.: 713.209.7350
Fax: 713.209.7351
Email: adorenbaum@crglp.com

CRG PARTNERS III(CAYMAN) L.P.

By CRG PARTNERS III (CAYMAN) GP L.P.,
its General Partner

By CRG PARTNERS III GP LLC,
its General Partner

By /s/ Nathan Hukill
Name: Nathan Hukill
Title: Authorized Signatory

WITNESS: /s/ Nicole Nesson
Name: Nicole Nesson

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LENDERS:

CRG PARTNERS III L.P.

By CRG PARTNERS III GP L.P.,
its General Partner

By CRG PARTNERS III GP LLC,
its General Partner

By /s/ Nathan Hukill
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CRG PARTNERS III – PARALLEL FUND "A" L.P.

By CRG PARTNERS III – PARALLEL FUND
"A" GP L.P., its General Partner

By CRG PARTNERS III GP LLC,
its General Partner

By /s/ Nathan Hukill
Name: Nathan Hukill
Title: Authorized Signatory

Address for Notices:

1000 Main Street, Suite 2500
Houston, TX 77002
Attn: General Counsel
Tel.: 713.209.7350
Fax: 713.209.7351
Email: adorenbaum@crglp.com

IN WITNESS WHEREOF, the parties hereto have duly executed this Amendment, as of the date first above written.

BORROWER:

SILK ROAD MEDICAL, INC.

By: /s/ Lucas W. Buchanan
Name: Lucas W. Buchanan
Title: CFO

AMENDMENT NO. 5 TO TERM LOAN AGREEMENT

THIS AMENDMENT NO. 5 TO TERM LOAN AGREEMENT, dated as of September 4, 2018 (this "***Amendment***") is made among Silk Road Medical, Inc., a Delaware corporation ("***Borrower***"), and the Lenders party hereto with respect to the Term Loan Agreement.

RECITALS

WHEREAS, the Borrower, the Subsidiary Guarantors from time to time party thereto, and the lenders from time to time party thereto (each a "***Lender***" and, collectively, the "***Lenders***") are parties to a Term Loan Agreement, dated as of October 13, 2015 (as amended by Amendment No. 1 to Term Loan Agreement, dated as of January 3, 2017, amended by Amendment No. 2 to Term Loan Agreement, dated as of June 22, 2017, as amended by Amendment No. 3 to Term Loan Agreement, dated November 30, 2017, as amended by Amendment No. 4 to Term Loan Agreement, dated June 25, 2018 and as further, restated, modified or otherwise supplemented from time to time, the "***Loan Agreement***").

WHEREAS, the parties hereto desire to amend the Term Loan Agreement on the terms and subject to the conditions set forth herein.

AGREEMENT

NOW, THEREFORE, in consideration of the mutual agreements, provisions and covenants contained herein, the parties agree as follows:

SECTION 1. Definitions; Interpretation.

(a) **Terms Defined in Loan Agreement**. All capitalized terms used in this Amendment (including in the recitals hereof) and not otherwise defined herein shall have the meanings assigned to them in the Loan Agreement.

(b) **Interpretation**. The rules of interpretation set forth in **Section 1.03** of the Loan Agreement shall be applicable to this Amendment and are incorporated herein by this reference.

SECTION 2. Amendment to Term Loan Agreement. Subject to **Section 3**, the Loan Agreement is hereby amended as follows:

2.1 The following definitions shall be added to **Section 1.01** of the Loan Agreement as follows:

"***Common Stock***" means the class of common stock of Borrower into which Borrower's preferred stock is converted in connection with a Qualified IPO.

"***Fifth Amendment Effective Date***" means September 4, 2018.

"***Fourth Tranche Borrowing***" means a Borrowing pursuant to **Section 6.04**.

"***Qualified IPO***" means (i) an underwritten initial public offering of the common stock of Borrower which results in market capitalization at the time of the initial public offering (calculated based on the outstanding shares of common stock multiplied by the Qualified IPO Price) of at least$250,000,000 and a listing of such common stock on The Nasdaq Global Market, The Nasdaq Global Select Market or The New York Stock Exchange; or (ii) such other definition of "Qualified IPO" as otherwise approved by the board of directors of Borrower; provided that in connection with such initial public offering all of Borrower's outstanding preferred stock shall be converted into Common Stock.

"***Qualified IPO Price***" means, with respect to a Qualified IPO, the price per share at which shares of the common stock of Borrower are sold to the public in such Qualified IPO.

"***Third Tranche Borrowing***" means a Borrowing pursuant to **Section 6.03**.

2.2 The definition of "***Interest-Only Period***" in Section 1.01 of the Loan Agreement is hereby removed in its entirety.

2.3 The definition of "***Commitment***" in **Section 1.01** of the Loan Agreement is hereby amended by replacing "$30,000,000" in such definition with "$55,000,000" and to delete the words "on the date hereof" in the second sentence of such definition.

2.4 The definition of "***Commitment Period***" in **Section 1.01** of the Loan Agreement is hereby amend by replacing "April 28, 2017" in such definition with June 30, 2019".

2.5 The definition of "***Stated Maturity Date***" in **Section 1.01** of the Loan Agreement is hereby amended by replacing "twenty-fourth (24th)" in such definition with "twenty-ninth (29th)".

2.6 **Section 2.01** of the Loan Agreement is hereby amended and restated in its entirety as follows:

2.01 Commitments. Each Lender agrees severally, on and subject to the terms and conditions of this Agreement (including Section 6), to make up to four term loans (provided that PIK Loans shall be deemed not to constitute "term loans" for purposes of this Section 2.01) to Borrower, each on a Business Day during the Commitment Period in Dollars in an aggregate principal amount for such Lender not to exceed such Lender's Commitment; provided, however, that at no time shall any Lender be obligated to make a Loan in excess of such Lender's Proportionate Share of the amount by which the then effective Commitments exceed the aggregate principal amount of Loans (excluding PIK Loans) made by such Lender pursuant hereto. Amounts of Loans repaid may not be reborrowed.

2.7 **Section 3.01(a)** of the Loan Agreement is hereby amended and restated in its entirety as follows:

"(a) Repayment. Borrower agrees to repay to Lenders the outstanding principal amount of the Loans on the Maturity Date."

2.8 **Section 6.03** of the Loan Agreement (and all references thereto) shall be renumbered as and hereafter referred to as **Section 6.05** of the Loan Agreement.

2.9 **Section 2.08** of the Loan Agreement is hereby added and inserted as follows:

"**Section 2.08. Conversion**.

(a) In connection with a Qualified IPO, up to 25%, in 5% increments, of the outstanding principal balance on the Loans (including PIK Loans) may be converted, at Borrower's option and subject to terms specified herein, into Common Stock (the "***Conversion Shares***") at a conversion price per share equal to the Qualified IPO Price (the "***Conversion***"). For the avoidance of doubt, converted Loans shall continue to accrue interest until the consummation of the Conversion, which accrued interest shall be due and payable on the Payment Date immediately following the Conversion.

(b) The Conversion pursuant to Section 2.08(a) shall be subject to the following conditions:

(i) Borrower shall have provided prior written notice to the Lenders at least thirty (30) days prior to the expected pricing date of the Qualified IPO specifying (a) the expected range of the Qualified IPO Price, (b) the amount of the Loan being converted and (c) the targeted closing date of such Qualified IPO (the "***Conversion Notice***");

(ii) the principal amount of Loans subject to the Conversion shall not exceed the principal amount specified in the Conversion Notice; and

(iii) all Conversion Shares issued upon conversion of Notes will be fully paid and non-assessable by the Borrower and free from all preemptive rights, taxes, liens and charges with respect to the issue thereof.

(c) Upon Conversion of a Loan under this **Section 2.08**, such Loan will, for all purposes, be deemed to be converted into Conversion Shares, at which time such portion of the principal amount of the Loan specified in the Conversion Notice shall be deemed cancelled and fully satisfied. Upon conversion of such Loan, promptly following the closing date for the Qualified IPO, Borrower will issue and deliver to each Lender a certificate or certificates for

the aggregate number of Conversion Shares to which such Lender is entitled and cash or check with respect to any fractional interest in a Conversion Shares.

(d) In connection with any Qualified IPO, each of the Lenders agrees, if requested by Borrower and the lead underwriter in such Qualified IPO, to enter into an agreement in customary form with such lead underwriter not to sell or otherwise transfer or dispose of any Conversion Shares held by such Lender during the one hundred eighty (180)-day period (or such other period as may be requested by the Borrower or the managing underwriter to accommodate regulatory restrictions on (i) the publication or other distribution of research reports and (ii) analyst recommendations and opinions, including, but not limited to, the restrictions contained in FINRA Rule 2241, or any successor provisions or amendments thereto) following the effective date of a registration statement of the Borrower filed under the Securities Act, provided that (i) such agreement only applies to the Qualified IPO; and (ii) all executive officers of the Company enter into similar agreements; provided further that such agreement contains customary exclusions for permitted transfers, including transfers to Affiliates and distributions to investors and transfers upon a change of control or similar transaction.

(e) The person or persons entitled to receive the Conversion Shares issuable upon a Conversion shall be treated for all purposes as the legal and record holder or holders of such Conversion Shares upon the pricing of the Qualified IPO; provided that the Conversion shall be effective upon the closing of the Qualified IPO.

(f) On or after the date that is six months after the date of the Conversion, at the request of any Lender, the Borrower shall promptly:

(i) notify such Lender whether or not the conditions specified in Rule 144(c)(1) under the Securities Act have been met;

(ii) subject to Section 2.08(d), provided the Holder is not an affiliate of the Borrower, and has not been an affiliate of the Borrower for the 90 days preceding the date of such request and if, prior to one year after the date of Conversion, subject to compliance by the Borrower with Rule 144(c)(1) under the Securities Act, ensure that the Conversion Shares will be freely transferable, without restriction or limitation (including any volume limitation) under federal or state securities laws, pursuant to Rule 144 under the Securities Act and cause the removal of legend or stop transfer order restricting the resale or transferability of thereof and cooperate with such Lender in exchanging any certificates representing Conversion Shares for book-entry credits to such Lender's or it's designee's balance account with the DTC.

(g) No Prepayment Premium shall apply to the principal amount of any Loans that are converted pursuant to this **Section 2.08** and the

principal amount of such Loans shall be excluded from the calculation of the facility fee payable pursuant to Section 2 of the Fee Letter.

2.10 **Section 3.02(a)** of the Loan Agreement is hereby amended and restated in its entirety as follows:

"**(a)** **Interest Generally**. Subject to **Section 3.02(d)**, Borrower agrees to pay to the Lenders interest on the unpaid principal amount of the Loans and the amount of all other outstanding Obligations, in the case of the Loans, for the period from the applicable Borrowing Date, and in the case of any other Obligation, from the date such other Obligation is due and payable, in each case, until paid in full, at a rate *per annum* equal to (i) before the Fifth Amendment Effective Date, 13.00%, (ii) on and after the Fifth Amendment Date Effective Date, 10.75%, and (iii) on and after the consummation of a Qualified IPO, 10.00%."

2.11 **Section 3.02(d)** of the Loan Agreement is hereby amended and restated in its entirety as follows:

(d) **Paid In-Kind Interest**. Notwithstanding **Section 3.01(a)**, at any time during the PIK Period, Borrower may elect to pay the interest on the outstanding principal amount of the Loans payable pursuant to **Section 3.01** as follows: (i) prior to the Fifth Amendment Effective Date, (1) only 8.50% of the 13.00% *per annum* interest in cash and (2) 4.50% of the 13.00% *per annum* interest as compounded interest, added to the aggregate principal amount of the Loans, (ii) on or after the Fifth Amendment Effective Date (1) only 8.00% of the 10.75% *per annum* interest in cash and (2) 2.75% *per annum* interest as compounded interest, added to the aggregate principal amount of the Loans, and (iii) on or after the consummation of a Qualified IPO, (1) only 8.00% of the 10.00% *per annum* interest in cash and (2) 2.00% *per annum* interest as compounded interest, added to the aggregate principal amount of the Loans (the amount of any such compounded interest pursuant to clauses (i), (ii) or (iii) being a "***PIK Loan***"). At the request of any Lender, the PIK Loan of such Lender may be evidenced by a Note in the form of **Exhibit C-2**. The principal amount of each PIK Loan shall accrue interest in accordance with the provisions of this Agreement applicable to the Loans.

2.12 **Section 6.03** of the Loan Agreement is hereby added and inserted as follows: "

6.03 Conditions to Third Tranche Borrowing. The obligation of each Lender to make a Loan as part of the Third Tranche Borrowing is subject to the following conditions precedent:

(a) **Amount of Borrowing**. The amount of such Borrowing shall be (i) $15,000,000 or (ii) at Borrower's option, greater than $15,000,000, in increments of $2,500,000.

(b) **Notice of Borrowing**. A Notice of Borrowing shall have been received no later than August 8, 2018.

(c) **Date of Borrowing**. Such Borrowing shall occur on September 4, 2018.

(d) **Payment of Fees and Expenses**. Borrower shall have paid or reimbursed Lenders for Lenders' (i) reasonable out of pocket costs and expenses incurred in connection with Third Tranche Borrowing, including Lenders' reasonable out of pocket legal fees and costs, pursuant to **Section 12.03(a)** of the Loan Agreement and (ii) fees payable pursuant to the Fee Letter."

2.13 Section 6.04 of the Loan Agreement is hereby added and inserted as follows:

"**6.04 Conditions to Fourth Tranche Borrowing**. The obligation of each Lender to make a Loan as part of the Fourth Tranche Borrowing is subject to the following conditions precedent:

(a) **Amount of Borrowing**. The amount of such Borrowing shall (i) not exceed (x) $25,000,000 *minus* (y) the amount of the Third Tranche Borrowing and (ii) be in integrals of $2,500,000.

(b) **Notice of Borrowing**. A Notice of Borrowing shall have been received no later than June 3, 2019.

(c) **Date of Borrowing**. Such Borrowing shall occur on June 30, 2019, or such later date as may be acceptable to the Lenders.

(d) **Payment of Fees and Expenses**. Borrower shall have paid or reimbursed Lenders for Lenders' (i) reasonable out of pocket costs and expenses incurred in connection with the Fourth Tranche Borrowing, including Lenders' reasonable out of pocket legal fees and costs, pursuant to **Section 12.03(a)** of the Loan Agreement and (ii) fees payable pursuant to the Fee Letter."

2.14 Section 8.01(b) of the Loan Agreement is hereby amended and restated as follows:

"(b) as soon as available and in any event within (i) 180 days after the end of each fiscal year of Borrower (commencing with the fiscal year ending December 31, 2015, but excluding the fiscal year ended December 31, 2016 and the fiscal year ended December 31, 2017), (ii) on or prior to August 31, 2017 with respect to the fiscal year ended December 31, 2016, or (iii) on or prior to November 1, 2018 with respect to the fiscal year ended December 31, 2017, the consolidated and (if prepared by Borrower) consolidating balance sheets of Borrower and its Subsidiaries as of the end of such fiscal year, and the related

consolidated and (if prepared by Borrower) consolidating statements of income, shareholders' equity and cash flows of Borrower and its Subsidiaries for such fiscal year, prepared in accordance with GAAP consistently applied, all in reasonable detail and setting forth (in the case of consolidated financial statements) in comparative form the figures for the previous fiscal year, accompanied by a report and opinion on such consolidated financial statements of PricewaterhouseCoopers LLP or another firm of independent certified public accountants of recognized national standing reasonably acceptable to the Lenders, which report and opinion shall be prepared in accordance with generally accepted auditing standards and shall not be subject to any qualification or exception as to the scope of such audit, and in the case of any prepared consolidating financial statements, certified by a Responsible Officer of Borrower;"

SECTION 3. Conditions of Effectiveness. The effectiveness of **Section 2** shall be subject to the following conditions precedent:

(a) Borrower and all of the Lenders shall have duly executed and delivered this Amendment pursuant to **Section 12.04** of the Loan Agreement; provided, however, that this Amendment shall have no binding force or effect unless all conditions set forth in this **Section 3** have been satisfied;

(b) No Default or Event of Default under the Loan Agreement shall have occurred and be continuing; and

(c) The Borrower shall have paid or reimbursed Lenders for Lenders' reasonable out of pocket costs and expenses incurred in connection with this Amendment and invoiced to the Borrower, including Lenders' reasonable and documented out of pocket legal fees and costs, pursuant to **Section 12.03(a)(i)(z)** of the Loan Agreement.

SECTION 4. Representations and Warranties; Reaffirmation.

(a) The Borrower hereby represents and warrants to each Lender as follows:

(i) The Borrower has full power, authority and legal right to make and perform this Amendment. This Amendment is within the Borrower's corporate powers and has been duly authorized by all necessary corporate and, if required, by all necessary shareholder action. This Amendment has been duly executed and delivered by the Borrower and constitutes a legal, valid and binding obligation of the Borrower, enforceable against the Borrower in accordance with its terms, except as such enforceability may be limited by (a) bankruptcy, insolvency, reorganization, moratorium or similar laws of general applicability affecting the enforcement of creditors' rights and (b) the application of general principles of equity (regardless of whether such enforceability is considered in a proceeding in equity or at law). This Amendment (x) does not require any consent or approval of, registration or filing with, or any other action by, any Governmental Authority or any third party, except for such as have been obtained or made and are in full force and effect, (y) will not violate any applicable law or regulation or the charter, bylaws or other organizational documents of the Borrower and its Subsidiaries or any order of any Governmental Authority, other than any such violations that,

individually or in the aggregate, could not reasonably be expected to have a Material Adverse Effect, (z) will not violate or result in an event of default under any material indenture, agreement or other instrument binding upon the Borrower and its Subsidiaries or assets, or give rise to a right thereunder to require any payment to be made by any such Person.

(ii) No Default has occurred or is continuing or will result after giving effect to this Amendment.

(iii) The representations and warranties made by or with respect to the Borrower in **Section 7** of the Loan Agreement are (A) in the case of representations qualified by "materiality," "Material Adverse Effect" or similar language, true and correct in all respects and (B) in the case of all other representations and warranties, true and correct in all material respects (except that the representation regarding representations and warranties that refer to a specific earlier date are true and correct on the basis set forth above as of such earlier date), in each case taking into account any changes made to schedules updated in accordance with **Section 7.21** of the Loan Agreement or attached hereto.

(iv) There has been no Material Adverse Effect since the date of the Loan Agreement.

(b) The Borrower hereby ratifies, confirms, reaffirms, and acknowledges its obligations under the Loan Documents to which it is a party and agrees that the Loan Documents remain in full force and effect, undiminished by this Amendment, except as expressly provided herein. By executing this Amendment, the Borrower acknowledges that it has read, consulted with its attorneys regarding, and understands, this Amendment.

SECTION 5. GOVERNING LAW; SUBMISSION TO JURISDICTION; WAIVER OF JURY TRIAL.

(a) **Governing Law**. This Amendment and the rights and obligations of the parties hereunder shall be governed by, and construed in accordance with, the law of the State of New York, without regard to principles of conflicts of laws that would result in the application of the laws of any other jurisdiction; *provided that* Section 5-1401 of the New York General Obligations Law shall apply.

(b) **Submission to Jurisdiction**. The Borrower agrees that any suit, action or proceeding with respect to this Amendment or any other Loan Document to which it is a party or any judgment entered by any court in respect thereof may be brought initially in the federal or state courts in Houston, Texas or in the courts of its own corporate domicile and irrevocably submits to the non-exclusive jurisdiction of each such court for the purpose of any such suit, action, proceeding or judgment. This **Section 5(b)** is for the benefit of the Lenders only and, as a result, no Lender shall be prevented from taking proceedings in any other courts with jurisdiction. To the extent allowed by applicable Laws, the Lenders may take concurrent proceedings in any number of jurisdictions.

(c) **Waiver of Jury Trial**. THE BORROWER AND EACH LENDER HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY SUIT, ACTION OR PROCEEDING ARISING OUT OF OR RELATING TO

THIS AMENDMENT, THE OTHER LOAN DOCUMENTS OR THE TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY.

SECTION 6. Miscellaneous.

(a) **No Waiver**. Nothing contained herein shall be deemed to constitute a waiver of compliance with any term or condition contained in the Loan Agreement or any of the other Loan Documents or constitute a course of conduct or dealing among the parties. Except as expressly stated herein, the Lenders reserve all rights, privileges and remedies under the Loan Documents. Except as amended hereby, the Loan Agreement and other Loan Documents remain unmodified and in full force and effect. All references in the Loan Documents to the Loan Agreement shall be deemed to be references to the Loan Agreement as amended hereby.

(b) **Severability**. In case any provision of or obligation under this Amendment shall be invalid, illegal or unenforceable in any jurisdiction, the validity, legality and enforceability of the remaining provisions or obligations, or of such provision or obligation in any other jurisdiction, shall not in any way be affected or impaired thereby.

(c) **Headings**. Headings and captions used in this Amendment (including the Exhibits, Schedules and Annexes hereto, if any) are included for convenience of reference only and shall not be given any substantive effect.

(d) **Integration**. This Amendment constitutes a Loan Document and, together with the other Loan Documents, incorporates all negotiations of the parties hereto with respect to the subject matter hereof and is the final expression and agreement of the parties hereto with respect to the subject matter hereof.

(e) **Counterparts**. This Amendment may be executed in any number of counterparts, all of which taken together shall constitute one and the same instrument and any of the parties hereto may execute this Amendment by signing any such counterpart.

(f) **Controlling Provisions**. In the event of any inconsistencies between the provisions of this Amendment and the provisions of any other Loan Document, the provisions of this Amendment shall govern and prevail. Except as expressly modified by this Amendment, the Loan Documents shall not be modified and shall remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have duly executed this Amendment, as of the date first above written.

BORROWER:

SILK ROAD MEDICAL, INC.

By: /s/ Lucas Buchanan
Name: Lucas Buchanan
Title: CFO

LENDERS:

CRG PARTNERS III L.P.

By CRG PARTNERS III GP L.P.,
its General Partner

By CRG PARTNERS III GP LLC,
its General Partner

By /s/ Nathan Hukill
Name: Nathan Hukill
Title: Authorized Signatory

Address for Notices:

1000 Main Street, Suite 2500
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Fax: 713.209.7351
Email: adorenbaum@crglp.com

CRG PARTNERS III – PARALLEL FUND "A" L.P.

By CRG PARTNERS III – PARALLEL FUND
"A" GP L.P., its General Partner

By CRG PARTNERS III GP LLC,
its General Partner

By /s/ Nathan Hukill
Name: Nathan Hukill
Title: Authorized Signatory

Address for Notices:

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Tel.: 713.209.7350
Fax: 713.209.7351
Email: adorenbaum@crglp.com

CRG PARTNERS III – PARALLEL FUND "B" (CAYMAN) L.P.

By CRG PARTNERS III (CAYMAN) GP L.P.,
its General Partner

By CRG PARTNERS III GP LLC,
its General Partner

By /s/ Nathan Hukill

Name: Nathan Hukill

Title: Authorized Signatory

WITNESS:

Name:

Address for Notices:

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Houston, TX 77002
Attn: General Counsel
Tel.: 713.209.7350
Fax: 713.209.7351
Email: adorenbaum@crglp.com

CRG PARTNERS III(CAYMAN) L.P.

By CRG PARTNERS III (CAYMAN) GP L.P.,
its General Partner

By CRG PARTNERS III GP LLC,
its General Partner

By /s/ Nathan Hukill

Name: Nathan Hukill

Title: Authorized Signatory

WITNESS: /s/ Nicole Nesson

Name: Nicole Nesson

Address for Notices:

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Fax: 713.209.7351
Email: adorenbaum@crglp.com

AMENDMENT NO. 6 TO TERM LOAN AGREEMENT

THIS AMENDMENT NO. 6 TO TERM LOAN AGREEMENT, dated as of November 14, 2018 (this "***Amendment***") and effective as of October 31, 2018 (the "***Effective Date***"), is made among Silk Road Medical, Inc., a Delaware corporation ("***Borrower***"), and the Lenders party hereto with respect to the Term Loan Agreement.

RECITALS

WHEREAS, the Borrower, the Subsidiary Guarantors from time to time party thereto, and the lenders from time to time party thereto (each a "***Lender***" and, collectively, the "***Lenders***") are parties to a Term Loan Agreement, dated as of October 13, 2015 (as amended by Amendment No. 1 to Term Loan Agreement, dated as of January 3, 2017, amended by Amendment No. 2 to Term Loan Agreement, dated as of June 22, 2017, as amended by Amendment No. 3 to Term Loan Agreement, dated November 30, 2017, as amended by Amendment No. 4 to Term Loan Agreement, dated June 25, 2018, as amended by Amendment No. 5 to Term Loan Agreement, dated as of September 4, 2018, and as further, restated, modified or otherwise supplemented from time to time, the "***Loan Agreement***"); and

WHEREAS, the parties hereto desire to amend the Term Loan Agreement on the terms and subject to the conditions set forth herein.

AGREEMENT

NOW, THEREFORE, in consideration of the mutual agreements, provisions and covenants contained herein, the parties agree as follows:

SECTION 1. Definitions; Interpretation.

(a) **Terms Defined in Loan Agreement**. All capitalized terms used in this Amendment (including in the recitals hereof) and not otherwise defined herein shall have the meanings assigned to them in the Loan Agreement.

(b) **Interpretation**. The rules of interpretation set forth in **Section 1.03** of the Loan Agreement shall be applicable to this Amendment and are incorporated herein by this reference.

SECTION 2. Amendment to Term Loan Agreement; Waiver. Subject to **Section 3**:

(a) Effective as of the Effective Date, **Section 8.01(b)** of the Loan Agreement is hereby amended and restated as follows:

> "(b) as soon as available and in any event within (i) 180 days after the end of each fiscal year of Borrower (commencing with the fiscal year ending December 31, 2015, but excluding the fiscal year ended December 31, 2016 and the fiscal year ended December 31, 2017), (ii) on or prior to August 31, 2017 with respect to the fiscal year ended December 31, 2016, or (iii) on or prior to December 21, 2018 with respect to the fiscal year ended December 31, 2017, the consolidated and (if prepared by Borrower) consolidating balance sheets of

Borrower and its Subsidiaries as of the end of such fiscal year, and the related consolidated and (if prepared by Borrower) consolidating statements of income, shareholders' equity and cash flows of Borrower and its Subsidiaries for such fiscal year, prepared in accordance with GAAP consistently applied, all in reasonable detail and setting forth (in the case of consolidated financial statements) in comparative form the figures for the previous fiscal year, accompanied by a report and opinion on such consolidated financial statements of PricewaterhouseCoopers LLP or another firm of independent certified public accountants of recognized national standing reasonably acceptable to the Lenders, which report and opinion shall be prepared in accordance with generally accepted auditing standards and shall not be subject to any qualification or exception as to the scope of such audit, and in the case of any prepared consolidating financial statements, certified by a Responsible Officer of Borrower;"

(b) Administrative Agent and the Lenders hereby waive any Default or Event of Default that has occurred on or after November 1, 2018 and prior to November 14, 2018, and before giving effect to this Amendment, due to Borrower's failure to comply with **Section 8.01(b)(iii)** of the Loan Agreement.

SECTION 3. Conditions of Effectiveness. The effectiveness of **Section 2** shall be subject to the following conditions precedent:

(a) Borrower and all of the Lenders shall have duly executed and delivered this Amendment pursuant to **Section 12.04** of the Loan Agreement; provided, however, that this Amendment shall have no binding force or effect unless all conditions set forth in this **Section 3** have been satisfied;

(b) After giving effect to this Amendment, no Default or Event of Default under the Loan Agreement shall have occurred and be continuing; and

(c) The Borrower shall have paid or reimbursed Lenders for Lenders' reasonable out of pocket costs and expenses incurred in connection with this Amendment and invoiced to the Borrower, including Lenders' reasonable and documented out of pocket legal fees and costs, pursuant to **Section 12.03(a)(i)(z)** of the Loan Agreement.

SECTION 4. Representations and Warranties; Reaffirmation.

(a) The Borrower hereby represents and warrants to each Lender as follows:

(i) The Borrower has full power, authority and legal right to make and perform this Amendment. This Amendment is within the Borrower's corporate powers and has been duly authorized by all necessary corporate and, if required, by all necessary shareholder action. This Amendment has been duly executed and delivered by the Borrower and constitutes a legal, valid and binding obligation of the Borrower, enforceable against the Borrower in accordance with its terms, except as such enforceability may be limited by (a) bankruptcy, insolvency, reorganization, moratorium or similar laws of general applicability affecting the enforcement of creditors' rights and (b) the application of general principles of equity (regardless of whether such enforceability is considered in a proceeding in equity or at law). This

Amendment (x) does not require any consent or approval of, registration or filing with, or any other action by, any Governmental Authority or any third party, except for such as have been obtained or made and are in full force and effect, (y) will not violate any applicable law or regulation or the charter, bylaws or other organizational documents of the Borrower and its Subsidiaries or any order of any Governmental Authority, other than any such violations that, individually or in the aggregate, could not reasonably be expected to have a Material Adverse Effect, (z) will not violate or result in an event of default under any material indenture, agreement or other instrument binding upon the Borrower and its Subsidiaries or assets, or give rise to a right thereunder to require any payment to be made by any such Person.

(ii) No Default has occurred or is continuing or will result after giving effect to this Amendment.

(iii) There has been no Material Adverse Effect since the date of the Loan Agreement.

(b) The Borrower hereby ratifies, confirms, reaffirms, and acknowledges its obligations under the Loan Documents to which it is a party and agrees that the Loan Documents remain in full force and effect, undiminished by this Amendment, except as expressly provided herein. By executing this Amendment, the Borrower acknowledges that it has read, consulted with its attorneys regarding, and understands, this Amendment.

SECTION 5. Governing Law; Submission to Jurisdiction; WAIVER OF JURY TRIAL.

(a) **Governing Law**. This Amendment and the rights and obligations of the parties hereunder shall be governed by, and construed in accordance with, the law of the State of New York, without regard to principles of conflicts of laws that would result in the application of the laws of any other jurisdiction; *provided* that Section 5-1401 of the New York General Obligations Law shall apply.

(b) **Submission to Jurisdiction**. The Borrower agrees that any suit, action or proceeding with respect to this Amendment or any other Loan Document to which it is a party or any judgment entered by any court in respect thereof may be brought initially in the federal or state courts in Houston, Texas or in the courts of its own corporate domicile and irrevocably submits to the non-exclusive jurisdiction of each such court for the purpose of any such suit, action, proceeding or judgment. This **Section 5(b)** is for the benefit of the Lenders only and, as a result, no Lender shall be prevented from taking proceedings in any other courts with jurisdiction. To the extent allowed by applicable Laws, the Lenders may take concurrent proceedings in any number of jurisdictions.

(c) **WAIVER OF JURY TRIAL**. THE BORROWER AND EACH LENDER HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY SUIT, ACTION OR PROCEEDING ARISING OUT OF OR RELATING TO THIS AMENDMENT, THE OTHER LOAN DOCUMENTS OR THE TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY.

SECTION 6. Miscellaneous.

(a) **No Waiver**. Nothing contained herein shall be deemed to constitute a waiver of compliance with any term or condition contained in the Loan Agreement or any of the other Loan Documents or constitute a course of conduct or dealing among the parties. Except as expressly stated herein, the Lenders reserve all rights, privileges and remedies under the Loan Documents. Except as amended hereby, the Loan Agreement and other Loan Documents remain unmodified and in full force and effect. All references in the Loan Documents to the Loan Agreement shall be deemed to be references to the Loan Agreement as amended hereby.

(b) **Severability**. In case any provision of or obligation under this Amendment shall be invalid, illegal or unenforceable in any jurisdiction, the validity, legality and enforceability of the remaining provisions or obligations, or of such provision or obligation in any other jurisdiction, shall not in any way be affected or impaired thereby.

(c) **Headings**. Headings and captions used in this Amendment (including the Exhibits, Schedules and Annexes hereto, if any) are included for convenience of reference only and shall not be given any substantive effect.

(d) **Integration**. This Amendment constitutes a Loan Document and, together with the other Loan Documents, incorporates all negotiations of the parties hereto with respect to the subject matter hereof and is the final expression and agreement of the parties hereto with respect to the subject matter hereof.

(e) **Counterparts**. This Amendment may be executed in any number of counterparts, all of which taken together shall constitute one and the same instrument and any of the parties hereto may execute this Amendment by signing any such counterpart.

(f) **Controlling Provisions**. In the event of any inconsistencies between the provisions of this Amendment and the provisions of any other Loan Document, the provisions of this Amendment shall govern and prevail. Except as expressly modified by this Amendment, the Loan Documents shall not be modified and shall remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have duly executed this Amendment, as of the date first above written.

BORROWER:

SILK ROAD MEDICAL, INC.

By: /s/ Lucas Buchanan
Name: Lucas Buchanan
Title: CFO

LENDERS:

CRG PARTNERS III L.P.

By CRG PARTNERS III GP L.P.,
ts General Partner

By CRG PARTNERS III GP LLC,
its General Partner

By /s/ Nathan Hukill
Name: Nathan Hukill
Title: Authorized Signatory

CRG PARTNERS III – PARALLEL FUND "A" L.P.

By CRG PARTNERS III – PARALLEL FUND "A" GP L.P., its General Partner

By CRG PARTNERS III GP LLC,
its General Partner

By /s/ Nathan Hukill
Name: Nathan Hukill
Title: Authorized Signatory

CRG PARTNERS III – PARALLEL FUND "B" (CAYMAN) L.P.

By CRG PARTNERS III (CAYMAN) GP L.P.,
its General Partner

By CRG PARTNERS III GP LLC,
its General Partner

By /s/ Nathan Hukill
Name: Nathan Hukill
Title: Authorized Signatory

WITNESS:

/s/ Nicole Nesson

Name:
Nicole Nesson

CRG PARTNERS III (CAYMAN) L.P.

By CRG PARTNERS III (CAYMAN) GP L.P.,
its General Partner

By CRG PARTNERS III GP LLC,
its General Partner

By /s/ Nathan Hukill

Name: Nathan Hukill

Title: Authorized Signatory

WITNESS:

/s/ Nicole Nesson

Name:

Nicole Nesson