Filed Pursuant to Rule 424(b)(5)
Registration No. 333-238007

The information in this preliminary prospectus supplement and the accompanying prospectus is not complete and may be changed. A registration statement relating to these securities has become effective under the Securities Act of 1933, as amended. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell these securities and are not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

Subject to Completion
Preliminary Prospectus Supplement dated May 5, 2020

PROSPECTUS SUPPLEMENT
(to Prospectus dated May 5, 2020)

$100,000,000
Common Stock

We are offering $75,000,000 of shares of our common stock and the selling securityholders identified in this prospectus supplement are offering $25,000,000 of shares of our common stock. We will not receive any of the proceeds from the shares of common stock sold by the selling securityholders.

Our common stock is listed on The Nasdaq Global Select Market under the symbol “SILK.” On May 4, 2020, the last reported sale price of shares of our common stock on The Nasdaq Global Select Market was $42.92 per share.

	Per Share	Total
Public offering price	$	$
Underwriting discounts and commissions[(1)]	$	$
Proceeds to Silk Road Medical, Inc., before expenses	$	$
Proceeds to selling securityholders, before expenses	$	$

(1) See “Underwriting” for a description of the compensation payable to the underwriters.

The selling securityholders have granted the underwriters an option for a period of 30 days to purchase up to $15,000,000 of additional shares of our common stock.

Investing in our common stock involves a high degree of risk. See the section entitled “Risk Factors” beginning on page S-13 of this prospectus supplement.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus supplement or the accompanying prospectus. Any representation to the contrary is a criminal offense.

The underwriters expect to deliver the shares to purchasers on or about May , 2020.

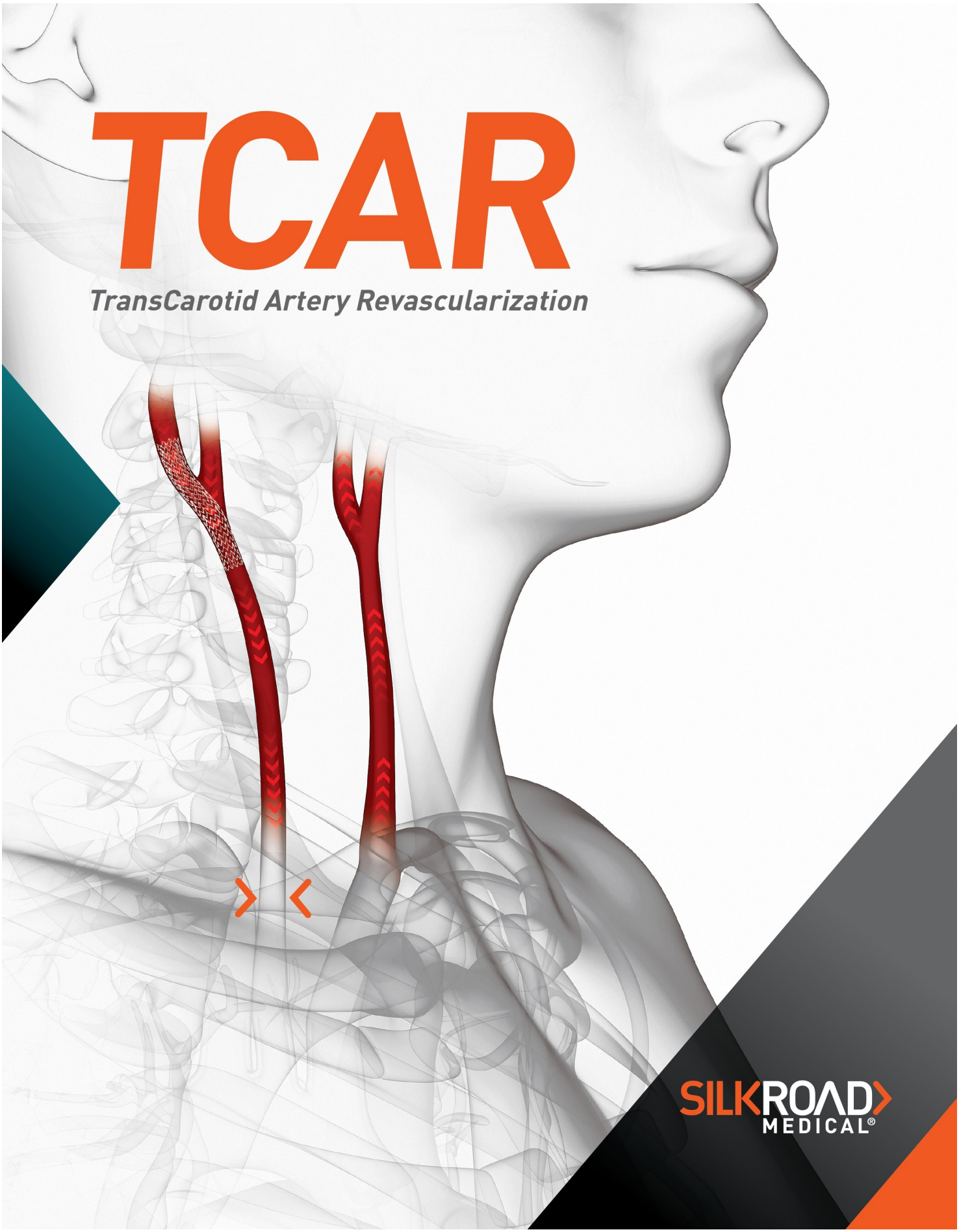
J.P. Morgan **BofA Securities** **Citigroup**

Stifel

The date of this prospectus supplement is May , 2020

TCAR

TransCarotid Artery Revascularization



SILKROAD MEDICAL®

TABLE OF CONTENTS

PROSPECTUS SUPPLEMENT	Page
ABOUT THIS PROSPECTUS SUPPLEMENT	S-1
PROSPECTUS SUPPLEMENT SUMMARY	S-2
RISK FACTORS	S-13
FORWARD-LOOKING STATEMENTS	S-24
USE OF PROCEEDS	S-26
DIVIDEND POLICY	S-27
DILUTION	S-28
SELLING SECURITYHOLDERS	S-29
MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES TO NON-U.S. HOLDERS	S-30
UNDERWRITING	S-34
LEGAL MATTERS	S-41
EXPERTS	S-41
WHERE YOU CAN FIND ADDITIONAL INFORMATION; INCORPORATION BY REFERENCE	S-41

PROSPECTUS	Page
ABOUT THIS PROSPECTUS	1
THE COMPANY	2
RISK FACTORS	3
USE OF PROCEEDS	7
SELLING SECURITYHOLDERS	8
DESCRIPTION OF CAPITAL STOCK	9
DESCRIPTION OF SECURITIES	10
PLAN OF DISTRIBUTION	11
LEGAL MATTERS	13
EXPERTS	13
WHERE YOU CAN FIND ADDITIONAL INFORMATION; INCORPORATION BY REFERENCE	13

ABOUT THIS PROSPECTUS SUPPLEMENT

This document contains two parts. The first part is this prospectus supplement, which describes the specific terms of this offering and also supplements and updates information contained in the accompanying prospectus and the documents incorporated by reference into this prospectus supplement and the accompanying prospectus. The second part is the accompanying prospectus, which provides more general information, some of which may not apply to this offering. If the information contained in this prospectus supplement differs or varies from the information contained in the accompanying prospectus, you should rely on the information set forth in this prospectus supplement.

We, the selling securityholders and the underwriters have not, authorized anyone to provide you with information or to make any representation other than the information and representations contained or incorporated by reference in this prospectus supplement and the accompanying prospectus and the documents incorporated by reference herein and therein, along with the information contained in any permitted free writing prospectuses we have authorized for use in connection with this offering. We, the selling securityholders 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.

We, the selling securityholders and the underwriters are offering to sell, and seeking offers to buy, shares of our common stock only in jurisdictions where offers and sales are permitted. For investors outside the United States we, the selling securityholders and the underwriters have not done anything that would permit this offering or possession or distribution of this prospectus supplement, the accompanying prospectus and in any free writing prospectus that we have authorized for use in connection with this offering 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 supplement, the accompanying prospectus and any free writing prospectus that we have authorized for use in connection with this offering must inform themselves about, and observe any restrictions relating to, the offering of the shares of common stock and the distribution of this prospectus supplement, the accompanying prospectus and any free writing prospectus that we have authorized for use in connection with this offering outside the United States.

The information contained in this prospectus supplement and the accompanying prospectus is accurate only as of the date of this prospectus supplement or the date of the accompanying prospectus, and the information in the documents incorporated by reference in this prospectus supplement and the accompanying prospectus is accurate only as of the date of those respective documents, regardless of the time of delivery of this prospectus supplement and the accompanying prospectus or of any sale of our common stock. Our business, financial condition, results of operations and prospects may have changed since those dates. It is important for you to read and consider all information contained or incorporated by reference in this prospectus supplement and the accompanying prospectus in making your investment decision. You should read this prospectus supplement, the accompanying prospectus and any free writing prospectus that we have authorized for use in connection with this offering, as well as the documents incorporated by reference herein and therein and the additional information described under “Where You Can Find Additional Information; Incorporation by Reference” in this prospectus supplement and in the accompanying prospectus, before investing in our common stock.

Unless otherwise indicated or the context otherwise requires, references in this prospectus supplement and the accompanying prospectus to “Silk Road Medical,” the “company,” “we,” “us” and “our” refer to Silk Road Medical, Inc.

SUPPLEMENTAL PROSPECTUS SUMMARY

This summary highlights selected information contained in greater detail elsewhere in this prospectus and in the documents incorporated herein by reference 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 and the documents incorporated by reference in this prospectus carefully, especially the risks of investing in our common stock discussed under the heading "Risk Factors," and our financial statements and related notes incorporated by reference in this prospectus.

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 risks commonly associated with surgical procedures for carotid endarterectomy while maintaining a reduction in long-term stroke risk. We are the first and only company to obtain FDA approvals, secure specific Medicare coverage for TCAR, and commercialize products engineered and indicated for use in patients who require carotid revascularization, but are at high risk for adverse events from carotid endarterectomy and who meet certain treatment criteria. As of December 31, 2019, more than 16,000 TCAR procedures have been performed, including more than 8,400 in 2019 and 2,700 in first quarter 2020.

Carotid artery disease is the progressive buildup of plaque causing narrowing of the arteries in the front of the neck, which supply 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 were approximately 4.3 million people with carotid artery disease in the United States in 2018, with an estimated 427,000 new diagnoses in 2018, and that existing treatment options have substantial safety and effectiveness limitations.

One of the main goals of treating carotid artery disease is to prevent a future stroke. When intervention beyond non-surgical 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 the CEA procedure itself is associated with a significant risk of adverse events such as cranial nerve injury, heart attack, wound complications and, in some cases, 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 following treatment, 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 procedure 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, as performed using our products, has the potential to become the preferred alternative for carotid revascularization.

Based on the estimated 427,000 new carotid artery disease diagnoses in the United States in 2018, we believe a total annual U.S. market opportunity of approximately $2.6 billion exists for our portfolio of TCAR products. We are currently focused on penetrating and converting carotid revascularization procedures to TCAR. There were approximately 168,000 carotid revascularization procedures performed in 2018, which we estimate to be a market conversion opportunity greater than $1.0 billion. Over 8,400 TCAR procedures were performed in 2019 in the United States using our products, representing less than 2% 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 11,900 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 other select 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 to $63.4 million for the year ended December 31, 2019 compared to $34.6 million for the year ended December 31, 2018, representing growth of 83%, and our net losses were $52.4 million and $37.6 million for the years ended December 31, 2019 and 2018, respectively. As of December 31, 2019 and 2018, our accumulated deficit was $191.5 million and $139.1 million, respectively.

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 coverage and reimbursement 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. In 2018, carotid artery disease was prevalent in approximately 4.3 million people in the United States, and an estimated 427,000 patients in the United States were 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 of treatment. 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 following treatment, relative to CEA. As a result, CAS is performed in a minority of carotid revascularization procedures, consisting of only 14% of the estimated 168,000 carotid revascularization procedures in the United States in 2018.

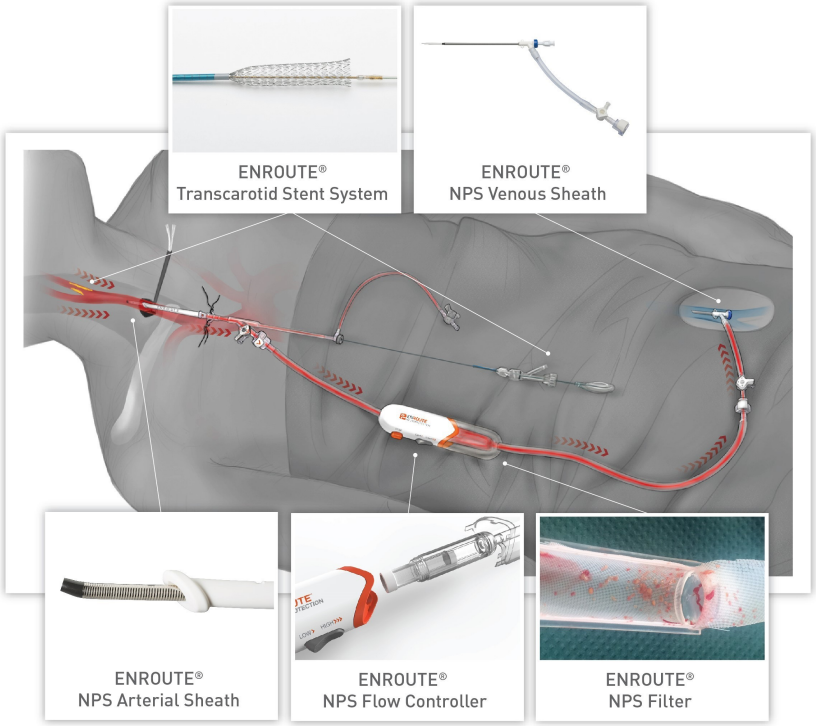
Our Solution

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 validated, minimally-invasive reduction in stroke risk, we believe that TCAR offers a better solution for the approximately 168,000 patients treated in the United States in 2018, most of whom were treated with either CEA or CAS, which we estimate to be a near-term market conversion opportunity greater than $1.0 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 111,000, of the approximately 168,000 patients treated in the United States in 2018, most of whom were treated for carotid artery disease with either CEA or CAS. We are currently focused on clinical development activities to support potential label expansion for our ENROUTE stent to patients who are at standard risk for adverse events from CEA, or standard surgical risk. If we are able to obtain FDA approval to tread these patients, we would then seek to obtain an associated expansion in Medicare coverage and reimbursement.

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 427,000 individuals in the United States who were diagnosed with carotid artery disease, representing a total U.S. target market opportunity of approximately $2.6 billion in 2018.

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 other select 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 coverage and reimbursement;
- Pursuing international markets; and
- Continuing our history of innovation in and beyond TCAR.

Recent Developments

Impact of COVID-19

On January 30, 2020, the World Health Organization, or WHO, announced a global health emergency due to a new strain of coronavirus originating in Wuhan, China (the “COVID-19 outbreak”), which detailed the risks to the international community as the virus spread globally beyond its point of origin.

In March 2020, WHO declared the COVID-19 coronavirus a pandemic, based on the rapid increase in exposure globally. The COVID-19 pandemic is negatively affecting the United States and global economies. As the

COVID-19 outbreak continues to spread, and as governmental authorities order quarantines, shelter-in-place, and similar mandates (the "Governmental Mandates"), or as the perception that such Governmental Mandates or other restrictions on the conduct of business operations could occur, related to the COVID-19 outbreak, it has affected and we expect it will continue to affect our operations and those of our customers, vendors and business partners. The extent of the COVID-19 impact on our supply chain and our future revenue is difficult for us to quantify at this time but we believe that we currently have inventory on hand to meet our forecasted demand through at least the end of 2020.

Beginning mid-March 2020 through mid-April 2020, we experienced decreasing levels of customer demand for our products. We attribute this decrease to a variety of challenges associated with COVID-19, including, among others:

- Directives from the Centers for Disease Control, the Centers for Medicare and Medicaid Services, various medical societies and other entities that suggested rescheduling elective surgeries as necessary;
- Travel restrictions that have reduced the number of physicians travelling to attend our training programs;
- Travel restrictions and changing hospital policies that have limited the access of our sales professionals and therapy development specialists to hospitals where TCAR is performed;
- The deferral of previously scheduled surgeries; a reduction in diagnostic testing to identify new patients with carotid artery disease; patient reluctance to visit physicians or hospitals for fear of contracting COVID-19; and
- The economic impact on patients who have lost jobs, been furloughed, have reduced work hours or are worried about the continuation of their medical insurance.

We expect these challenges to continue to impact our number of procedures and revenue at least through the second quarter of 2020, and perhaps for the remainder of 2020 and into 2021, but its extent cannot be quantified at this time. In response to COVID-19 we have taken swift and proactive measures in an attempt to minimize business disruptions and preserve financial flexibility. In assessing our own cash conservation options, we have taken preemptive steps to curtail near-term spending, including delaying previously contemplated executive salary increases and reducing non-essential sales, general, and administrative expenses. Some expenses planned for the second quarter of 2020, including physician training courses and advertising campaigns, are being deferred to later time periods. We have taken steps to take care of our employees, including providing the ability for employees to work remotely and implementing strategies to support appropriate social distancing techniques for future interactions. We are also assessing our business continuity plans in the context of this pandemic. While we are subject to the California shelter in place orders as well as the specific orders in the county of Santa Clara, where our headquarters, distribution and ENROUTE NPS assembly and packaging facility is located, we are considered an essential business under applicable state rules and can restart our manufacturing operations at any time. We have necessary components and raw materials on hand and appropriate distancing policies and protocols established to continue manufacturing operations. Additionally, we believe we have enough finished good inventory on hand to react appropriately to an increase in demand.

Although our average daily procedures decreased considerably beginning in mid-March through mid-April, we have seen some stabilization in those numbers in the second half of April. Moreover, given that carotid artery disease is a chronic, progressive disease that steadily gets worse over time, we believe that many of the procedures that have been deferred during this time will be rescheduled, and patients will eventually receive treatment. Directives from the Centers for Medicare and Medicaid Services and the American College of Surgeons indicate that procedures for patients with symptomatic carotid artery disease should not be rescheduled despite COVID-19. Also, we are aware of certain physicians who, in an effort to preserve resources during the pandemic, have implemented TCAR as their preferred treatment for carotid artery disease in their practices since the procedure is often faster, less invasive, uses less overall hospital resources, and patients are often discharged from the hospital sooner compared with carotid endarterectomy.

While this provides some cause for optimism, we recognize that the impact of COVID-19 is changing daily and we cannot predict whether recent number of procedures are indicative of future results, whether we will experience additional and significant adverse impacts from COVID-19 or the ultimate duration, severity and geographic impact of the pandemic on our operations and financial results.

On March 27, 2020, Congress enacted the Coronavirus Aid, Relief, and Economic Security (CARES) Act to provide certain relief as a result of the COVID-19 outbreak. As provided under the CARES Act, we have deferred the employer portion of social security taxes and plan to apply for employee retention credits.

Summary Preliminary Financial Data For Quarter Ended March 31, 2020

Our financial statements as of and for the three months ended March 31, 2020 are not yet available. Accordingly, the information presented below reflects our estimates and expectations, for the three months ended March 31, 2020, subject to the completion of our financial close process and our actual financial statements for the three months ended March 31, 2019. As a result, these estimates may differ from the actual results that will be reflected in our financial statements as of and for the three months ended March 31, 2020 when they are issued. These estimates may change and those changes may be material. These estimates are not meant to be a comprehensive statement of our financial position and results for this period. Accordingly, you should not place undue reliance on these estimates.

For the three months ended March 31, 2020, our preliminary estimated revenue was $18.9 million, as compared to $12.8 million for the three months ended March 31, 2019, an increase of $6.2 million or 48% compared to three months ended March 31, 2019. This increase was driven primarily by growing adoption of the TCAR procedure across an expanded base of hospital accounts, trained physicians, and active sales territory. Gross profit for the three months ended March 31, 2020 was $13.7 million compared to $9.4 million for the three months ended March 31, 2019. Our preliminary estimated gross margin for the three months ended March 31, 2020 was 72% compared to 74% for the three months ended March 31, 2019, resulting from previously announced investments in manufacturing engineering and infrastructure projects. Operating expenses were $22.8 million for the three months ended March 31, 2020, compared to $16.6 million in the three months ended March 31, 2019, which represents an increase of 38% compared to the three months ended March 31, 2019. The increase was driven primarily by selling, general and administrative expenses related to growth in our commercial team and marketing efforts as well as costs related to being a public company. For the three months ended March 31, 2020, research and development expenses were $3.1 million, compared to $2.7 million for the three months ended March 31, 2019, an increase of $0.4 million or 15% compared to three months ended March 31, 2019. Sales, general and administrative expenses for the three months ended March 31, 2020 were $19.7 million, compared to $13.9 million for the three months ended March 31, 2019, an increase of $5.8 million or 42% compared to three months ended March 31, 2019. For the three months ended March 31, 2020, our estimated net loss was $9.9 million, as compared to $24.2 million for the three months ended March 31, 2019, a decrease of $14.3 million or 59% compared to the three months ended March 31, 2019. Our net loss for the three months ended March 31, 2019 included a $15.7 million noncash charge resulting from the remeasurement of the fair value of our convertible preferred stock warrant liability at each balance sheet date. We continued to record adjustments to the estimated fair value of the convertible preferred stock warrants until they were exercised in connection with our initial public offering in April 2019. As of March 31, 2020, our preliminary estimated cash and cash equivalents and short-term investments balance was $97.6 million, our preliminary estimated working capital was $106.0 million, and our preliminary estimated principal and interest outstanding under our credit facilities was $45.0 million.

These preliminary estimates have been prepared by, and are the responsibility of, our management and are based on a number of assumptions. PricewaterhouseCoopers LLP has not audited, reviewed, compiled or performed any procedures with respect to such preliminary information as of and for the three months ended March 31, 2020. Accordingly, PricewaterhouseCoopers LLP does not express an opinion or any other form of assurance with respect to these preliminary amounts.

Additional Information

As of March 31, 2020, approximately 19,000 TCAR procedures have been performed globally, including approximately 2,700 in the first quarter of 2020. In our continued efforts towards establishing TCAR as the standard

of care for treatment of carotid artery disease, we are strategically expanding our U.S. sales force and marketing activities. As of December 31, 2019, we have approximately 640 hospital accounts across 33 active sales territories, with a target of 40-50 sales territories in the longer term. The safety, effectiveness and clinical advantages of TCAR have been demonstrated in multiple clinical trials, post-market studies and registries. In a study published in the Journal of the American Medical Association in December 2019, a propensity-matched analysis of 3,286 patients in each cohort showed TCAR patients were 27% less likely to have a prolonged hospital stay compared to patients who underwent CAS.

Our directors have the following additional business experience that has not been previously disclosed:

- Jack W. Lasersohn previously served on the board of directors of OncoMed Pharmaceuticals, Inc., a publicly traded clinical development-stage biopharmaceutical company, from July 2005 to April 2019;
- Amr Kronfol previously served on the board of directors of Amrest Holdings SE, an independent restaurant distributor, from June 2014 to August 2015; and
- Donald J. Zurbay previously served on the board of directors of Avedro, Inc., a medical device company, from July 2017 to November 2019.

Risks Associated with our Business

Our business is subject to numerous risks and uncertainties, including, but not limited to, the following:

- The COVID-19 pandemic and efforts to reduce its spread has impacted, and may in the future periods negatively impact, our business and operations.
- 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.

- 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.
- We have identified two material weaknesses in our internal control over financial reporting and may identify additional material weaknesses in the future.

For more information regarding these and other risks, please see "Risk Factors" in this prospectus supplement and the documents incorporated herein by reference.

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 incorporated by reference 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 incorporated by reference in this prospectus, 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 our initial public 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.

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, we will continue to be permitted to make certain reduced disclosures in our periodic reports and other documents that we file with the SEC.

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.

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	$75,000,000 of shares of our common stock.
Common stock offered by the selling securityholders	$25,000,000 of shares of our common stock.
Common stock outstanding after this offering	shares.
Underwriters' option to purchase additional shares	The selling securityholders affiliated with Warburg Pincus have granted the underwriters a 30-day option to purchase up to an additional $15,000,000 of shares of our common stock at the public offering price, less the underwriting discounts and commissions.
Use of proceeds	We estimate the net proceeds to us from this offering will be approximately $ million, after deducting 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, lease new facilities, expand internationally, and provide for working capital and other general corporate purposes. We may use a portion of the net proceeds to repay debt or 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. The selling securityholders will receive all of the net proceeds from the sale of shares of common stock by the selling securityholders in this offering. See "Use of Proceeds."
Risk factors	See "Risk Factors" beginning on page S-13.
Nasdaq Stock Market symbol	SILK

The number of shares of common stock that will be outstanding after this offering is based on 31,255,267 shares of common stock outstanding as of December 31, 2019 and excludes:

- 4,310,790 shares of our common stock issuable upon the exercise of options to purchase shares of our common stock outstanding as of December 31, 2019, with a weighted-average exercise price of $7.91 per share;
- 683,600 shares of our common stock issuable upon the exercise of options to purchase shares of our common stock granted after December 31, 2019, with a weighted-average exercise price of $33.14 per share;
- 38,225 shares of our common stock issuable upon the vesting of restricted stock units granted after December 31, 2019; and
- 2,785,967 shares of common stock reserved for future grants under our stock-based compensation plans, consisting of:
    - 2,101,063 shares of common stock reserved for future grants under our 2019 Equity Incentive Plan; and

- 684,904 shares of common stock reserved for future issuance under our 2019 Employee Stock Purchase Plan.

In addition, unless otherwise indicated, all information in this prospectus assumes no exercise by the underwriters of their option to purchase additional shares of common stock from the selling securityholders affiliated with Warburg Pincus in this offering.

RISK FACTORS

An investment in our securities involves a high degree of risk. Prior to making a decision about investing in our securities, you should carefully consider the information contained in this prospectus supplement and the accompanying prospectus, together with all of the other information contained or incorporated by reference in this prospectus supplement or appearing or incorporated by reference in the prospectus. You should also consider the risks, uncertainties and assumptions discussed under "Part I—Item 1A—Risk Factors" in our most recent Annual Report on Form 10-K, all of which are incorporated herein by reference, and as may be amended, supplemented or superseded from time to time by other reports we file with the SEC in the future and any prospectus supplement related to a particular offering. The risks and uncertainties we have described are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our operation. Note that the impact of the COVID-19 outbreak and any worsening of the economic environment may exacerbate the risks and uncertainties we have described, any of which could have a material impact on us. This situation is changing rapidly and additional impacts may arise that we are not aware of currently.

Risks Related to Our Business

The COVID-19 pandemic and efforts to reduce its spread has impacted, and may in the future periods negatively impact, our business and operations.

The spread of COVID-19 in the United States has resulted in travel restrictions impacting our sales professionals and therapy development specialists who support them. However, our field-based team continues to be available to support TCAR procedures, either in person or virtually. Our field team may, however, choose not to enter hospitals due to preexisting conditions, personal choice, or on doctors' orders or may be unable to enter hospitals due to hospital policy. We have also cancelled our training programs, resulting in fewer new physicians trained on the TCAR procedure relative to our plans. In addition, hospitals may reduce staffing and postpone certain procedures in response to COVID-19 or divert resources to treat those patients with COVID-19. Some hospitals have also limited access for non-patients, including our sales professionals and therapy development specialists, which has negatively impacted our access to physicians and their patients. New hospital sanitization and social distancing protocols, as well as increased competition for operating room and hybrid operating rooms within hospitals that have dedicated certain resources only to COVID patients, may impact our business and operations. Additionally, we anticipate that an increase in the unemployment rate due to the impact of COVID-19 will decrease the number of potential patients with access to health insurance, which may result in fewer diagnoses, lower number of procedures, or result in a shift to procedures which are reimbursed by government payers. As hospitals cancel and defer elective surgeries, it reduces their revenue and impacts their financial results, which could result in pricing pressure on our products as they seek cost savings. Prolonged restrictions relating to COVID-19 could adversely affect our sales and the revenue we derive as a result. For additional risks related to the impact of COVID-19 on our business see the Recent Developments section of our Supplemental Prospectus Summary above.

We expect these challenges to continue to impact our number of procedures through the second quarter of 2020, and perhaps for the remainder of 2020 and into 2021, but its extent cannot be quantified at this time. Our customers' patients are also experiencing the economic impact of the current epidemic. Even an important surgical procedure like TCAR may be less of a priority than other items for those patients who have lost their jobs, are furloughed, have reduced work hours or are worried about the continuation of their medical insurance. Patients may also be reluctant to visit their physicians or hospitals due to fear of contracting COVID-19. Physicians are not performing as many diagnostic tests for their patients and the labs where these tests are performed may not be open, staffed adequately or open the entire day. Even where physicians continue to treat symptomatic patients, treatment of asymptomatic patients is being deferred in many cases. The reduction in diagnostic testing and physician visits, the increase in deferred treatment, and patient behaviors are translating into fewer TCAR procedures performed in the current environment.

Governmental Mandates related to COVID-19 or other infectious diseases have impacted, and we expect them to continue to impact, our personnel and personnel at third-party manufacturing facilities in the United States and other countries, or the availability or cost of materials, which would disrupt our supply chain and/or reduce our margins. For instance, on or about March 16, 2020, the Health Officers of the county of Santa Clara, where our

headquarters, distribution and ENROUTE NPS assembly and packaging facility is located, issued a mandatory shelter-in-place order through April 7, 2020 that was later extended through May 31, 2020. While we have continued to operate with remote employees and essential employees on site, an extended implementation of this Governmental Mandate could impact our ability to operate effectively and conduct ongoing manufacturing or research and development. However, we are considered an essential business under applicable state rules and can restart our manufacturing operations at any time. We have necessary components and raw materials on hand and appropriate distancing policies and protocols established to continue manufacturing operations. Additionally, we believe we have finished goods inventory on hand to react appropriately to an increase in demand. We anticipate that even if there is a significant increase in demand for our products due to the deferred procedure volume backlog, new sanitization protocols and other capacity constraints may limit the efficient distribution of our finished products if the impact of COVID-19 is prolonged.

While we expect the COVID-19 pandemic to impact our business over the short term as some procedures are temporarily deferred, we have taken swift and proactive measures to minimize business disruptions and preserve financial flexibility. In assessing our own cash conservation options, we have taken preemptive steps to curtail near-term spending, including delaying previously contemplated executive salary increases, slowing hiring initiatives and reducing non-essential sales, general, and administrative expenses. Some expenses planned for the second quarter of 2020, including physician training courses and advertising campaigns, are being deferred to later time periods. In the event that COVID-19 continues to limit our sales and resulting revenue, we may have to reduce our employees' work hours, furlough employees, reduce salaries, variable compensation and benefits, or implement a reduction-in-force. We may also solicit voluntary leaves of absence from our employees as we implement cash conservation strategies. Our ongoing operations may be impacted as a result of employees assuming additional roles and responsibilities within our organization and we would have fewer resources available to run our operations, which would reduce our expenses, but could also negatively impact our business operations and revenue as a result. We may also encounter voluntary departures of key employees due to any of the foregoing actions that we undertake. If key personnel or large groups of our employees contract the virus, that may also impact our business and operations. In the meantime, we have taken steps to provide for our employees, including providing the ability for employees to work remotely and implementing strategies to support appropriate social distancing techniques for future interactions. We are also assessing our business continuity plans in the context of this pandemic.

The outbreak and persistence of COVID-19 in international markets that we have targeted for our international expansion may also delay preparation for and launch of such expansion efforts. Regulatory timelines for approval in some countries have been delayed. The spread of an infectious disease, including COVID-19, could also result in the inability of our suppliers to deliver components or raw materials to us on a timely basis. If there were a shortage of supply, the cost of these materials or components may increase and harm our ability to provide our products on a cost-effective basis. In connection with any supply shortages in the future, reliable and cost-effective replacement sources may not be available on short notice or at all, and this may force us to increase prices and face a corresponding decrease in demand for our products. In the event that any of our suppliers were to discontinue production of our key product components, developing alternate sources of supply for these components would be time consuming, difficult and costly. The extent to which COVID-19 impacts our business will depend on future developments, which are highly uncertain and cannot be predicted, including the duration and severity of the pandemic, the actions taken to reduce its transmission, and the speed with which normal economic and operating conditions resume, among others.

As permitted by the CARES Act, we have deferred the employer portion of social security taxes and plan to apply for employee retention credits. We continue to review and may seek other available benefits under CARES Act. We cannot predict the manner in which such benefits will be allocated or administered and we cannot assure you that we will be able to access such benefits in a timely manner or at all. Certain of the benefits under the CARES Act have not previously been administered on the present scale or at all. Government or third party program administrators may impose additional conditions and restrictions on our operations and the benefits may otherwise provide less relief than we contemplate. If the U.S. government or any other governmental authority agrees to provide crisis relief assistance that we accept, it may impose certain requirements on the recipients of the aid, including restrictions on executive officer compensation, dividends, prepayment of debt, limitations on debt and other similar restrictions that will apply for a period of time after the aid is repaid or redeemed in full. We cannot

assure you that any such government crisis relief assistance will not significantly limit our corporate activities or be on terms that are favorable to us. Such restrictions and terms could adversely impact our business and operations.

Finally, we anticipate that the COVID-19 pandemic may impact clinical and regulatory matters. While we do not have any clinical trials currently in process for regulatory purposes, COVID-19 is delaying enrollment in new clinical trials across the medical device industry and may affect any new trials we decide to pursue. Our ongoing diffusion weighted imaging trials in the US and Europe are experiencing patient enrollment delays. Additionally, we may experience regulatory delays in our effort to seek a label expansion for the ENROUTE stent in standard surgical risk patients, as the FDA has from time to time diverted resources to address the impact of COVID-19. If COVID-19 continues to spread, we may experience disruptions that could have a material adverse impact on our clinical trial plans and timelines, including:

- Delays in receiving authorizations from local regulatory authorities to initiate planned clinical trials;
- Delays or difficulties in enrolling patients in our clinical trials;
- Delays or difficulties in clinical site initiation, including difficulties in recruiting clinical site investigators and clinical site staff;
- Delays in clinical sites receiving the supplies and materials needed to conduct our clinical trials, including interruptions in global shipping that may affect the transport of clinical trial materials;
- Changes in local regulations as part of a response to the COVID-19 pandemic which may require us to change the ways in which our clinical trials are conducted, which may result in unexpected costs, or to discontinue the clinical trials altogether;
- Diversion of healthcare resources away from the conduct of clinical trials, including the diversion of hospitals serving as our clinical trial sites and hospital staff supporting the conduct of our clinical trials;
- Interruption of key clinical trial activities, such as clinical trial site monitoring, due to limitations on travel imposed or recommended by federal or state governments, employers and others, or interruption of clinical trial subject visits and study procedures, the occurrence of which could affect the integrity of clinical trial data;
- Risk that participants enrolled in our clinical trials will acquire COVID-19 while the clinical trial is ongoing, which could impact the results of the clinical trial, including by increasing the number of observed adverse events;
- Delays in necessary interactions with local regulators, ethics committees and other third parties and contractors due to limitations in employee resources or forced furlough of government employees;
- Limitations in employee resources that would otherwise be focused on the conduct of our clinical trials, including because of sickness of employees or their families or the desire of employees to avoid contact with large groups of people; and
- Refusal of the FDA to accept data from clinical trials in affected geographies.

Any of these occurrences may significantly harm our business, financial condition and prospects. In addition, many of the factors that cause, or lead to, a delay in the commencement or completion of clinical trials may also ultimately lead to the denial of regulatory approval of our product candidates.

In addition, the FDA and other global health regulatory agencies may also experience disruptions in their operations as a result of the COVID-19 pandemic. The FDA and comparable foreign regulatory agencies may have slower response times or be under-resourced and, as a result, review, inspection and other timelines may be materially delayed. For example, in response to the global pandemic of COVID-19, on March 10, 2020 the FDA announced its intention to postpone most foreign inspections of manufacturing facilities and products, and subsequently, on March 18, 2020, the FDA announced its intention to temporarily postpone routine surveillance

inspections of domestic manufacturing facilities. Regulatory authorities outside the United States may adopt similar restrictions or other policy measures in response to the COVID-19 pandemic. It is unknown how long such delays or disruptions could last. Any elongation or de-prioritization of our clinical or other product development activities or delay in regulatory review resulting from such disruptions could materially affect our results of operations.

The ultimate impact of COVID-19 is highly uncertain and subject to change. This impact could have a material, adverse impact on our liquidity, capital resources, operations and business and those of the third parties on which we rely. The extent to which COVID-19 impacts our results will depend on future developments, which are highly uncertain and cannot be predicted, including new information which may emerge concerning the severity of COVID-19 and the actions to contain COVID-19 or treat its impact, among others. We do not yet know the full extent of potential delays or impacts on our business, financial condition and results of operations. Additionally, while the potential economic impact brought by, and the duration of, the COVID-19 pandemic is difficult to assess or predict, the impact of COVID-19 on the global financial markets may reduce our ability to access capital, which could negatively impact our short-term and long-term liquidity and our ability to operate.

Unfavorable global economic conditions could adversely affect our business, financial condition or results of operations.

Our results of operations could be adversely affected by general conditions in the global economy and in the global financial markets. The global financial crisis caused extreme volatility and disruptions in the capital and credit markets. A severe or prolonged economic downturn, such as the global financial crisis, could result in a variety of risks to our business, including driving hospitals to tighten budgets and curtail spending, which would negatively impact our sales and business. In addition, higher unemployment or reductions in business benefits plans could result in fewer commercially insured patients, which could negatively impact our revenue and business as a result. A weak or declining economy could also strain our manufacturers or suppliers, possibly resulting in supply disruption, or cause our customers to delay making payments for our services. Any of the foregoing could harm our business and we cannot anticipate all of the ways in which the economic climate and financial market conditions could adversely affect our business.

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 manufacturing partners 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 would be negatively affected by many factors, including our limited historical commercial experience regarding TCAR, rapid growth, pandemics, 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, changes to hospital capacity, staffing, procedure and protocol changes, 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. In the past, we have shipped products with short shelf life to customers for procedures, and to the extent those products are not used and expire, we may exchange them, and this may materially and adversely affect our gross margin. Conversely, if we underestimate customer demand for our products or our own requirements for components, subassemblies and materials, our manufacturing partners and suppliers may not be able to deliver components, sub-assemblies and materials to meet our requirements and our manufacturing may be affected by the impact of COVID-19 on our suppliers, 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 our

manufacturing partners, or at all, and our manufacturing partners and suppliers may not be able to allocate sufficient capacity in order to meet our increased requirements, any of which could have an adverse effect on our ability to meet customer demand for our products and our results of operations.

Risks Related to This Offering

The market price of our common stock may be volatile and fluctuate substantially, which could result in substantial losses for purchasers of our common stock.

Prior to our initial public offering in April 2019, there was no public market for our common stock. Since shares of our common stock were sold in our initial public offering in April 2019 at a price of $20.00 per share, our stock price has ranged from $20.84 to $51.50 through May 4, 2020. The market price of our common stock is likely to be highly volatile and may fluctuate substantially due to many 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 coverage or reimbursement by current or potential payers;
- Changes in operating performance and stock market valuations of other healthcare or 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 as well as studies and registries conducted by others using our products;
- The results of clinical trials that study competing carotid interventions or medical management of carotid artery disease;
- 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;
- Market uncertainty relating to the impact of the COVID-19 pandemic;
- Announcements related to patents issued to us or our competitors and related litigation; and
- Developments in our industry.

In addition, the trading prices for common stock of other medical device companies have been highly volatile as a result of the COVID-19 pandemic. The COVID-19 outbreak continues to rapidly evolve. The extent to which the

outbreak may impact our business will depend on future developments, which are highly uncertain and cannot be predicted with confidence.

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 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 depends 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, the trading price of our common stock could decline.

In connection with this offering, each of our directors and officers have entered into lock-up agreements in connection with this offering, on substantially similar terms, which expire 90 days from the date of this prospectus. Upon completion of this offering, based on the number of shares outstanding on December 31, 2019, shares of our common stock will be restricted from sale as a result of securities laws or lock-up agreements through the date that is 90 days from the date of this prospectus. The selling securityholders have entered into lock-up agreements, on substantially similar terms, and shares of our common stock held by the selling securityholders will be restricted through the date that is 60 days from the date of this prospectus.

After this offering, the holders of an aggregate of shares of our outstanding common stock as of December 31, 2019, 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 March 31, 2020, our directors, officers and each stockholder holding 5% or more of our outstanding common stock and their affiliates beneficially owned approximately 40.2% of our outstanding common stock in the aggregate. 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 March 31, 2020. In addition, we are required to nominate and use commercially reasonable efforts to have a number of individuals proportionate to the number of shares of common stock held by entities affiliated with Warburg Pincus & Co. compared to the number of shares of common stock outstanding, designated by Warburg Pincus & Co. elected to the board of directors. As a result, Warburg Pincus & Co. 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. We have not elected under the rules of the Nasdaq Stock Market to take advantage of the "controlled company" exemption to opt out of any corporate governance requirements, but 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 have previously 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 the completion of our initial public 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 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 financial statements that would not be prevented or detected.

With the oversight of senior management and our audit committee, we began the implementation of remediation steps in 2018. These efforts focused on (i) the hiring of personnel with technical accounting and financial reporting experience and (ii) the implementation of improved accounting and financial reporting procedures and systems to improve the completeness, timeliness and accuracy of our financial reporting and disclosures including the assessment of more judgmental areas of accounting. We believe the measures described above will remediate the material weaknesses identified and strengthen our internal control over financial reporting. While we believe the steps taken in our remediation initiatives outlined above are sufficient to remediate the material weaknesses in internal control over financial reporting, our improvements, including the enhanced controls, have not operated for a sufficient period of time to demonstrate that the material weaknesses are fully remediated. As such, the remediation initiatives outlined above were not sufficient to fully remediate the material weaknesses in internal control over financial reporting for the year ended December 31, 2019. We are committed to continuing to improve our internal control processes and will continue to diligently and vigorously review our financial reporting controls and procedures.

While we continue to implement our 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.

We are 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 common stock.

We are 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 year ended December 31, 2020. 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 continuing 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 are unable to remediate our material weaknesses or if we identify additional 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 an additional 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 our current and any future 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 a "smaller reporting company" and we cannot be certain if the reduced disclosure requirements applicable to us 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. 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, we will continue to be permitted to make certain reduced disclosures in our periodic reports and other documents that we file with the SEC. 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 our initial public 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 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" in our prospectus dated May 5, 2020.

Our amended and restated certificate of incorporation and bylaws 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 and bylaws provide that, unless we consent in writing to the selection of an alternative forum, the sole and exclusive forum, to the fullest extent permitted by law, for (1) any derivative action or proceeding brought on our behalf, (2) any action asserting a claim of breach of a fiduciary duty

owed by any of our directors, officers or other employees to us or our stockholders, (3) any action asserting a claim against the company or any director or officer of the company arising pursuant to any provision of the Delaware General Corporation Law, (4) any action to interpret, apply, enforce or determine the validity of our amended and restated certificate of incorporation or bylaws, or (5) any other action asserting a claim that is governed by the internal affairs doctrine shall be the Court of Chancery of the State of Delaware or federal court located within the State of Delaware if the Court of Chancery does not have jurisdiction, in all cases subject to the court's having jurisdiction over indispensable parties named as defendants. A complaint asserting a cause of action under the Securities Act may be brought in state or federal court. With respect to the Securities Exchange Act of 1934, or Exchange Act, only claims brought derivatively under the Exchange Act would be subject to the forum selection clause described above. The enforceability of similar choice of forum provisions in other companies' certificates of incorporation and bylaws has been challenged in legal proceedings, and it is possible that, in connection with any action, a court could find the choice of forum provisions contained in our amended and restated certificate of incorporation and bylaws to be inapplicable or unenforceable in such action. Although we believe these provisions benefit us by providing increased consistency in the application of Delaware law for the specified types of actions and proceedings, the provisions may have the effect of discouraging lawsuits against us or our directors and officers. Alternatively, if a court were to find the choice of forum provision contained in our amended and restated certificate of incorporation and bylaws 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. Any person or entity purchasing or otherwise acquiring any interest in our shares of capital stock shall be deemed to have notice of and consented to this exclusive forum provision, but will not be deemed to have waived our compliance with the federal securities laws and the rules and regulations thereunder.

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.

Prior to our initial public offering, our chief financial officer had not previously been the chief financial officer of a publicly traded company and our chief executive officer had not previously been the chief executive officer of a publicly traded company. As a public company, we are required to maintain internal control over financial reporting and to report any material weaknesses in such internal control. We are 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 our initial public offering in April 2019, 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 are unable to remediate our material weaknesses or we have an additional 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 are unable to remediate our material weaknesses or we have material weaknesses in our internal control over financial reporting in the future, 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 are unable to remediate our material weaknesses or we identify additional material weaknesses in our internal control over financial reporting in the future, 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 were unable to remediate our material weaknesses or we have a material weakness or significant deficiency in our internal control over financial reporting in the future, 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 public offering price is substantially higher than the book value per share of our common stock. Purchasers of common stock in this offering will incur immediate dilution of $ in net tangible book value per share of common stock, based on a public offering price of $ per share. See "Dilution."

FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus, and the documents we have filed with the SEC that are incorporated by reference in this prospectus supplement and the accompanying prospectus contain certain statements that constitute 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 made by us in this prospectus supplement, the accompanying prospectus, or any of the documents incorporated by reference in this prospectus supplement and accompanying prospectus speak only as of the date of this prospectus supplement and the accompanying prospectus. We expressly disclaim any obligation or undertaking to release publicly any updates or revisions to any forward looking statements contained herein to reflect any change in our expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based. You should, however, review additional disclosures we make in our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, and Current Reports on Form 8-K filed with the SEC.

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 expectations regarding the number of procedures that will be performed with our products, the number of physicians we expect to train, and the number of our sales territories;
- Our ability to obtain, maintain and expand regulatory clearances for our current products and any new products we create;
- The expected growth of our business and our organization;
- 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;
- Our expectations regarding the impact of the COVID-19 pandemic on our business;
- Developments and projections relating to our competitors or our industry; and
- Our intended use of net proceeds from this offering.

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 supplement, the accompanying prospectus and the information incorporated by reference in this prospectus supplement and the accompanying 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 supplement the accompanying prospectus and the information incorporated by reference in this prospectus supplement and the accompanying 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 the filing in which the statements are made. 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. Except as required by applicable law, including the securities laws of the United States and the rules and regulations of the SEC, we do not plan to publicly update or revise any forward-looking statements contained herein after we distribute this prospectus supplement and the accompanying prospectus, whether as a result of any new information, future events or otherwise.

You should read this prospectus supplement, the accompanying prospectus and the information incorporated by reference in this prospectus supplement and the accompanying prospectus with the understanding that our actual future results, levels of activity, performance and events and circumstances may be materially different from what we expect.

USE OF PROCEEDS

We estimate that the net proceeds to us from this offering, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, will be approximately $ million.

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, lease new facilities, expand internationally, and to provide for working capital and other general corporate purposes. We may use a portion of the net proceeds to repay debt or acquire complimentary 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 are also filing the registration statement of which this prospectus is a part to permit holders of the shares of our common stock included in the section entitled “Selling Securityholders” to resell such shares. We will not receive any net proceeds from the sale of shares of common stock by the selling securityholders.

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 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 investment grade, interest bearing instruments, money market funds, certificates of deposit, commercial paper and U.S. government securities.

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.

DILUTION

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

As of December 31, 2019, our historical net tangible book value was $71.9 million, or $2.30 per share of common stock. Historical net tangible book value per share represents our total tangible assets less total liabilities, divided by the number of our shares of common stock outstanding as of December 31, 2019.

After giving effect to the sale of shares of common stock by us at the public offering price of $ per share, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of December 31, 2019 would have been $ million, or $ per share. This represents an immediate increase in net tangible book value of $ per share to existing stockholders and immediate dilution of $ per share to investors in this offering, as illustrated by the following table:

Public offering price per share		$
Net tangible book value per share as of December 31, 2019	$ 2.30	
Increase in net tangible book value per share attributable to investors participating in this offering	$	
As adjusted net tangible book value per share after giving effect to this offering		$
Dilution per share to investors in this offering		$

For purposes of this section, the number of shares of common stock that will be outstanding after this offering is based on 31,255,267 shares of common stock outstanding as of December 31, 2019 and excludes:

- 4,310,790 shares of our common stock issuable upon the exercise of options to purchase shares of our common stock outstanding as of December 31, 2019, with a weighted-average exercise price of $7.91 per share;
- 683,600 shares of our common stock issuable upon the exercise of options to purchase shares of our common stock granted after December 31, 2019, with a weighted-average exercise price of $33.14 per share;
- 38,225 shares of our common stock issuable upon the vesting of restricted stock units granted after December 31, 2019; and
- 2,785,967 shares of common stock reserved for future grants under our stock-based compensation plans, consisting of:
  - 2,101,063 shares of common stock reserved for future grants under our 2019 Equity Incentive Plan; and
  - 684,904 shares of common stock reserved for future issuance under our 2019 Employee Stock Purchase Plan.

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.

To the extent that additional shares are issued pursuant to the foregoing, investors purchasing our common stock in this offering will experience further dilution. In addition, we may offer other securities in other offerings due to market conditions or strategic considerations. To the extent we issue such securities, you may experience further dilution.

SELLING SECURITYHOLDERS

The following table and footnotes set forth information with respect to the beneficial ownership of our common stock by the selling securityholders as of March 31, 2020, subject to certain assumptions set forth in the footnotes and as adjusted to reflect the issuance and sale of shares of common stock by us and the sale of shares of common stock by the selling securityholder in this offering.

Beneficial ownership of shares is determined under the rules of the SEC and generally includes any shares over which a person exercises sole or shared voting or investment power and includes shares issuable upon exercise of options held by the person that may be exercised or converted within 60 days of March 31, 2020. Except as indicated by footnote, and subject to applicable community property laws, we believe each person identified in the table possesses sole voting and investment power with respect to all shares of common stock beneficially owned by such person. Shares of common stock subject to options currently exercisable or exercisable within 60 days of March 31, 2020, are deemed to be outstanding for calculating the number and percentage of outstanding shares of the person holding such options but are not deemed to be outstanding for calculating the percentage ownership of any other person.

Applicable percentage ownership in the following table is based on 31,395,637 shares of common stock outstanding as of March 31, 2020.

When we refer to the "selling securityholders" in this prospectus supplement, we mean the persons listed in the table below as offering shares, as well as the pledgees, donees, assignees, transferees, successors and others who may hold any of the selling securityholder's interest.

	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)	
Name of Selling Securityholder	Number of Shares	Percentage	Number of Shares Being Offered+	Number of Shares	Percentage	Number of Shares	Percentage
Entities affiliated with Warburg Pincus & Co[1]	5,906,301	18.8%					

† If the underwriters exercise their option to purchase additional shares in full, the selling securityholders affiliated with Warburg Pincus will sell a total of $15,000,000 of additional shares of our common stock in the offering.

(1) Consists of (i) 183,090 shares of common stock beneficially owned by Warburg Pincus X Partners, L.P. ("WPXP"), and (ii) 5,723,211 shares of common stock 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 and WPXP. 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. Warburg Pincus LLC, a New York limited liability company is the manager of WP X Finance, WPXP, and WP X. Ruoxi Chen, a Principal at Warburg Pincus LLC, and Amr Kronfol, a Managing Director at Warburg Pincus LLC, 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.

For more information about our relationships with the selling securityholder and its affiliates, see "Certain Relationships and Related Party Transactions, and Director Independence" in our Annual Report on Form 10-K, filed with the SEC on March 2, 2020, which is incorporated herein by reference.

MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES TO NON-U.S. HOLDERS

The following is a general discussion of the material U.S. federal income tax considerations applicable to non-U.S. holders (as defined herein) with respect to their ownership and disposition of shares of our common stock issued pursuant to this offering. All prospective non-U.S. holders of our common stock should consult their own 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. In general, a non-U.S. holder means a beneficial owner of our common stock (other than a partnership or an entity or arrangement treated 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, or an entity treated as a corporation for U.S. federal income tax purposes, created or organized under the laws of the United States or of any state thereof or the District of Columbia;
- An estate, the income of which is includable in gross income for U.S. federal income tax purposes regardless of its source; or
- A trust if (1) a U.S. court can exercise primary supervision over the trust's administration and one or more U.S. persons (within the meaning of Section 7701(a)(30) of the Internal Revenue Code of 1986, as amended (the "Code")) have the authority to control all of the trust's substantial decisions or (2) the trust has a valid election in effect under applicable U.S. Treasury Regulations to be treated as a U.S. person.

This discussion is based on current provisions of the Code, existing U.S. Treasury Regulations promulgated thereunder, published administrative pronouncements and rulings of the U.S. Internal Revenue Service (the "IRS") and judicial decisions, all as in effect as of the date of this prospectus. These authorities are subject to change and to differing interpretation, possibly with retroactive effect. Any change or differing interpretation could alter the tax consequences to non-U.S. holders described in this prospectus supplement and the accompanying 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, 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 estate or gift tax consequences, or any aspects of U.S. state, local or non-U.S. taxation. This discussion also does not consider any specific facts or circumstances that may apply to a non-U.S. holder and does not address the special tax rules applicable to particular non-U.S. holders, such as holders that own, or are deemed to own, more than 5% of our capital stock (except to the extent specifically set forth below), corporations that accumulate earnings to avoid U.S. federal income tax, tax-exempt organizations, banks, financial institutions, insurance companies, brokers, dealers or traders in securities, commodities or currencies, tax-qualified retirement plans, holders subject to the Medicare contribution tax on net investment income or the alternative minimum tax, holders that are subject to the special tax accounting rules of Section 451(b) of the Code, holders who hold or receive our common stock pursuant to the exercise of employee stock options or otherwise as compensation, holders holding our common stock as part of a hedge, straddle or other risk reduction strategy, conversion transaction or other integrated investment, holders deemed to sell our common stock under the constructive sale provisions of the Code, controlled foreign corporations, passive foreign investment companies and certain former U.S. citizens or long-term residents.

In addition, this discussion does not address the tax treatment of partnerships (or entities or arrangements that are treated as partnerships for U.S. federal income tax purposes) or persons that hold our common stock through such partnerships. If a partnership, including any entity or arrangement treated as a partnership for U.S. federal income tax purposes, holds shares of our common stock, the U.S. federal income tax treatment of a partner in such partnership will generally depend upon the status of the partner and the activities of the partnership. Such partners and partnerships should consult their own tax advisors regarding the tax consequences of the purchase, ownership and disposition of our common stock.

There can be no assurance that a court or the IRS will not challenge one or more of the tax consequences described herein, and we have not obtained, nor do we intend to obtain, a ruling 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.

Distributions on our Common Stock

As described in the section entitled "Dividend Policy," we do not anticipate declaring or paying any cash dividends on any of our capital stock. However, if we do make distributions of cash or property on our common stock, such distributions 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 our current and accumulated earnings and profits, the excess will be treated as a tax-free return of the non-U.S. holder's investment, up to such holder's adjusted tax basis in the common stock. Any remaining excess will be treated as capital gain from the sale or exchange of such common stock, subject to the tax treatment described below in "Gain on Sale, Exchange or other Disposition of our Common Stock." Any such distribution will also be subject to the discussion below regarding effectively connected income, backup withholding and FATCA withholding.

Dividends paid to a non-U.S. holder will generally be subject to withholding of U.S. federal income tax at a 30% rate of the gross amount of dividends or such lower rate as may be specified 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, that are attributable to a permanent establishment or a fixed base maintained by the non-U.S. holder within the United States, 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 regular U.S. federal income tax rates applicable to U.S. persons (as defined in the Code). Any U.S. effectively connected earnings and profits of 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 specified by an applicable income tax treaty between the United States and such holder's country of residence.

To claim a reduction or exemption from withholding, a non-U.S. holder of our common stock generally will be required to provide (a) a properly executed IRS Form W-8BEN or W-8BEN-E (or successor form), as applicable, and satisfy applicable certification and other requirements to claim the benefit of an applicable income tax treaty between the United States and such holder's country of residence, or (b) a properly executed IRS Form W-8ECI stating that dividends are not subject to withholding because they are effectively connected with such non-U.S. holder's conduct of a trade or business within the United States. Non-U.S. holders are urged to consult their tax advisors regarding their entitlement to benefits under a relevant income tax treaty.

A non-U.S. holder that is eligible for a reduced rate of U.S. withholding tax under an income tax treaty may obtain a refund or credit 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 FATCA withholding, in general, a non-U.S. holder 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 of the non-U.S. holder and, if an applicable income tax treaty so provides, is attributable to a permanent establishment or a fixed base maintained in the United States by such non-U.S. holder, in which case the non-U.S. holder generally will be taxed at the regular U.S. federal income tax rates applicable to U.S. persons (as defined in the Code) and, if the non-U.S. holder is a foreign corporation, the branch profits tax described above in "Distributions on our Common Stock" also may 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 taxable 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 (or such lower rate as may be specified by an applicable income tax treaty) on the gain derived from the disposition, which may be offset by U.S. source capital losses of the non-U.S. holder, if any (even though the individual is not considered a resident of the United States); or

- Our common stock constitutes a U.S. real property interest because 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 of our common stock, if shorter) a "United States real property holding corporation" for U.S. federal income tax purposes. Generally, a corporation is a U.S. real property holding corporation only if the fair market value of its U.S. real property interests equals or exceeds 50% of the sum of the fair market value of its worldwide real property interests plus its other assets used or held for use in a trade or business. Although there can be no assurance, we do not believe that we are, or have been, a U.S. real property holding corporation, or that we are likely to become one in the future. Even if we are or become a U.S. real property holding corporation, provided that our common stock is regularly traded, as defined by applicable Treasury Regulations, on an established securities market during the calendar year in which the disposition occurs, only a non-U.S. holder that holds more than 5% of our outstanding common stock, directly or indirectly, actually or constructively, during the shorter of the 5-year period ending on the date of the disposition or the period that the non-U.S. holder held our common stock will be subject to U.S. federal income tax on the disposition of our common stock. In such case, such non-U.S. holder generally will be taxed on its net gain derived from the disposition at the regular U.S. federal income tax rates applicable to U.S. persons (as defined in the Code). No assurance can be provided that our common stock will continue to be regularly traded on an established securities market for purposes of the rules described above.

Information Reporting and Backup Withholding

We must report annually to the IRS and to each non-U.S. holder the gross amount of the dividends on our common stock paid to such holder and the tax withheld, if any, with respect to such dividends. Non-U.S. holders will have to comply with specific certification procedures to establish that the holder is not a U.S. person (as defined in the Code) in order to avoid backup withholding at the applicable rate (currently 24%) with respect to dividends on our common stock. A non-U.S. holder generally will not be subject to U.S. backup withholding with respect to payments of dividends on our common stock if such holder establishes an exemption by certifying his, her or its non-U.S. status by providing a valid IRS Form W-8BEN or W-8BEN-E (or other applicable or successor form); provided we do not have actual knowledge or reason to know such non-U.S. holder is a U.S. person, as defined in the Code.

Information reporting and backup withholding will generally apply to the proceeds of a disposition of our common stock by a non-U.S. holder effected by or through the U.S. office of any broker, U.S. or foreign, unless the holder establishes an exemption by certifying his, her or its status as a non-U.S. holder and satisfies certain other requirements. Generally, information reporting and backup withholding will not apply to a payment of disposition proceeds to a non-U.S. holder where the transaction is effected outside the United States through a non-U.S. office of a broker. However, for information reporting purposes, dispositions effected through a non-U.S. office of a broker with substantial U.S. ownership or operations generally will be treated in a manner similar to dispositions effected through a U.S. office of a broker. Non-U.S. holders should consult their own tax advisors regarding the application of the information reporting and backup withholding rules to them.

Copies of information returns may be made available to the tax authorities of the country in which the non-U.S. holder resides or is incorporated under the provisions of a specific treaty or agreement.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules from a payment to a non-U.S. holder may be allowed as a credit against the non-U.S. holder's U.S. federal income tax liability, if any, and may entitle such holder to a refund, provided that the required information is timely furnished to the IRS.

FATCA Withholding

Sections 1471 through 1474 of the Code, and the U.S. Treasury Regulations and other administrative guidance issued thereunder, commonly referred to as "FATCA", generally impose a U.S. federal withholding tax of 30% on dividends on, and, subject to the proposed Treasury regulations discussed below, the gross proceeds from a sale or other disposition of, stock in a U.S. corporation paid to (i) a "foreign financial institution" (as specifically defined for this purpose), unless 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 certain information regarding certain U.S. account holders of such institution (which includes certain equity and debt holders of such institution, as well as certain account holders that are foreign entities with U.S. owners) or otherwise qualifies for an exemption from these rules, or (ii) a "non-financial foreign entity" (as defined in the Code), unless such entity provides the withholding agent with either a certification that it does not have any direct or indirect "substantial United States owners" (as defined in the Code) or provides the applicable withholding agent with a certification identifying, and information regarding, such substantial United States owners, or otherwise qualifies for an exemption from these rules. An intergovernmental agreement between the United States and the non-U.S. holder's country of residence may modify the requirements described in this paragraph.

U.S. Treasury Regulations proposed in December 2018 eliminate possible FATCA withholding on the gross proceeds from a sale or other disposition of our common stock, and may be relied upon by taxpayers until final regulations are issued.

We will not pay additional amounts or "gross up" payments to holders as a result of any withholding or deduction for taxes imposed under FATCA. Under certain circumstances, a non-U.S. holder might be eligible for refunds or credits of such taxes. Investors are encouraged to consult with their tax advisors regarding the implications of FATCA to their particular circumstances.

EACH PROSPECTIVE INVESTOR SHOULD CONSULT ITS OWN TAX ADVISOR REGARDING THE PARTICULAR U.S. FEDERAL, STATE AND LOCAL AND NON-U.S. TAX CONSEQUENCES OF THE PURCHASE, OWNERSHIP AND DISPOSITION OF OUR COMMON STOCK.

UNDERWRITING

We and the selling securityholders are offering the shares of common stock described in this prospectus supplement through a number of underwriters. J.P. Morgan Securities LLC and BofA Securities, Inc. are acting as joint book-running managers of the offering and representatives of the underwriters. Subject to the terms and conditions of the underwriting agreement, we and the selling securityholders have agreed to sell to the underwriters, and each underwriter has severally agreed to purchase 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	
BofA Securities, Inc.	
Citigroup Global Markets Inc.	
Stifel, Nicolaus & Company, Incorporated	
Total	

The underwriters are committed to purchase all the shares of common stock offered by us and the selling securityholders 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 public offering price set forth on the cover page of this prospectus supplement and to certain dealers at that price less a concession not in excess of $ per share. After the public offering of the shares, the offering price and other selling terms may be changed by the underwriters. 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 $15,000,000 additional shares of our common stock from the selling securityholders. The underwriters have 30 days from the date of this prospectus supplement 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 securityholders per share of common stock. The underwriter fee is $. The following table shows the per share and total underwriting discounts and commissions to be paid to the underwriters by us and the selling securityholders assuming both no exercise and full exercise of the underwriters' option to purchase additional shares from the selling securityholders.

	Paid by the Company		Paid by the selling securityholders	
	Without Option Exercise	With Full Option Exercise	Without Option Exercise	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 up to $25,000 for expenses relating to

the clearance of this offering with the Financial Industry Regulatory Authority, Inc., or FINRA. In addition, the underwriters have agreed to reimburse us for certain expenses incurred by us in connection with this offering.

A prospectus supplement and the accompanying 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 (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, lend or otherwise transfer or dispose of, directly or indirectly, or submit to or file with the SEC a registration statement under the Securities Act of 1933, as amended (the "Securities Act") relating to, any shares of our common stock or any securities convertible into or exercisable or exchangeable for our common stock, or publicly disclose the intention to undertake any of the foregoing, or (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 our common stock or such other securities, in cash or otherwise, without the prior written consent of J.P. Morgan Securities LLC and BofA Securities, Inc., for a period of 90 days after the date of this prospectus supplement, other than, among other things, (i) the shares of our common stock to be sold pursuant to this prospectus supplement, (ii) any shares of our common stock issued upon the exercise of options and the vesting of restricted stock awards granted under our existing equity incentive plans, and (iii) any options to purchase shares of our common stock granted pursuant to our existing equity incentive plans.

Our directors and executive officers and the selling securityholders 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 limited exceptions, for a period of 90 days (60 days with respect to the selling securityholders)(the "restricted period") after the date of this prospectus supplement, may not, without the prior written consent of J.P. Morgan Securities LLC and BofA Securities, Inc., (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, lend 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 shares of our common stock (including, without limitation, our common stock or such other securities which may be deemed to be beneficially owned by such directors or executive officers in accordance with the rules and regulations of the SEC and securities which may be issued upon exercise of a stock option or warrant), or publicly disclose the intention to undertake any of the foregoing, (2) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of our common stock or such other securities, whether any such transaction described in clause (1) or (2) above is to be settled by delivery of our 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 our common stock or securities convertible into or exercisable or exchangeable for our common stock.

These lock-up provisions apply to common stock and to securities convertible into or exchangeable or exercisable for common stock. Subject to certain limitations, the lock-up provisions do not prevent any person from: (1) establishing or amending a trading plan that complies with Rule 10b5-1 under the Securities Exchange Act of 1934 so long as there are no sales of common stock during the lock-up period, or (2) trading under a pre-existing Rule 10b5-1 trading plan.

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act.

Our common stock is listed on The Nasdaq Global Select Market under the symbol "SILK."

In connection with this offering, the underwriters may engage in stabilizing transactions, which involve 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 involve 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, 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 discounts and commissions 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 Global Select Market, in the over-the-counter market or otherwise.

The underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include sales and trading, commercial and investment banking, advisory, investment management, investment research, principal investment, hedging, market making, brokerage and other financial and non-financial activities and services. Some of the underwriters and their affiliates have engaged in, and may in the future engage in, investment banking and other commercial dealings in the ordinary course of business with us or our affiliates. They have received, or may in the future receive, customary fees and commissions for these transactions.

In addition, in the ordinary course of their business activities, the underwriters and their 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. Such investments and securities activities may involve securities and/or instruments of ours or our affiliates. The underwriters and their affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or financial instruments and may hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

Selling Restrictions

General

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 supplement and the accompanying prospectus in any jurisdiction where action for that purpose is required. The securities offered by this prospectus supplement and the accompanying prospectus may not be offered or sold, directly or indirectly, nor may this prospectus supplement and the accompanying 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 supplement and the accompanying prospectus come are advised to inform themselves about and to observe any restrictions relating to the offering and the distribution of this prospectus supplement and the accompanying prospectus. This prospectus supplement and the accompanying prospectus do not constitute an offer

to sell or a solicitation of an offer to buy any securities offered by this prospectus supplement and the accompanying prospectus in any jurisdiction in which such an offer or a solicitation is unlawful.

Canada

The shares of our common stock 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 supplement and accompanying 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 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.

European Economic Area

In relation to each Member State of the European Economic Area and the United Kingdom (each a "Relevant State"), no shares have been offered or will be offered pursuant to the offering to the public in that Relevant State prior to the publication of a prospectus in relation to the Shares which has been approved by the competent authority in that Relevant State or, where appropriate, approved in another Relevant State and notified to the competent authority in that Relevant State, all in accordance with the Prospectus Regulation), except that offers of shares may be made to the public in that Relevant State at any time under the following exemptions under the Prospectus Regulation:

a. To any legal entity which is a qualified investor as defined under the Prospectus Regulation;

b. To fewer than 150 natural or legal persons (other than qualified investors as defined under the Prospectus Regulation), subject to obtaining the prior consent of the representatives for any such offer; or

c. In any other circumstances falling within Article 1(4) of the Prospectus Regulation,

provided that no such offer of shares shall require us, the selling securityholders or any underwriter to publish a prospectus pursuant to Article 3 of the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation.

Each person in a Relevant State who initially acquires any shares or to whom any offer is made will be deemed to have represented, acknowledged and agreed to and with us, the selling securityholders and the underwriters that it is a qualified investor within the meaning of the Prospectus Regulation.

In the case of any shares being offered to a financial intermediary as that term is used in Article 5(1) of the Prospectus Regulation, 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 to the public other than their offer or resale in a Relevant State to qualified investors, in circumstances in which the prior consent of J.P. Morgan Securities LLC and BofA Securities, Inc. has been obtained to each such proposed offer or resale.

We, the selling securityholders, the representatives and their affiliates will rely upon the truth and accuracy of the foregoing representations, acknowledgements and agreements.

For the purposes of this provision, the expression an "offer to the public" in relation to any shares in any Relevant State means the communication in any form and by any means of sufficient information on the terms of the offer and any shares to be offered so as to enable an investor to decide to purchase or subscribe for any shares, and the expression "Prospectus Regulation" means Regulation (EU) 2017/1129.

References to the Prospectus Regulation includes, in relation to the UK, the Prospectus Regulation as it forms part of UK domestic law by virtue of the European Union (Withdrawal) Act 2018.

The above selling restriction is in addition to any other selling restrictions set out below.

In connection with the offering, the underwriters are not acting for anyone other than us and the selling securityholders and will not be responsible to anyone other than us and the selling securityholders for providing the protections afforded to their clients nor for providing advice in relation to the offering.

United Kingdom

This document is for distribution only to persons who (i) have professional experience in matters relating to investments and who qualify as investment professionals within the meaning of Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (as amended, the "Financial Promotion Order"), (ii) are persons falling within Article 49(2)(a) to (d) ("high net worth companies, unincorporated associations etc.") of the Financial Promotion Order, (iii) are outside the United Kingdom, or (iv) are persons to whom an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act 2000, as amended ("FSMA")) in connection with the issue or sale of any securities may otherwise lawfully be communicated or caused to be communicated (all such persons together being referred to as "relevant persons"). This document is directed only at relevant persons and must not be acted on or relied on by persons who are not relevant persons. Any investment or investment activity to which this document relates is available only to relevant persons and will be engaged in only with relevant persons.

Switzerland

The shares of our common stock 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 prospectus supplement, the accompanying prospectus 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 prospectus supplement, the accompanying prospectus nor any other offering or marketing material relating to the offering, us or 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.

Dubai International Financial Centre ("DIFC")

This prospectus supplement and accompanying prospectus relate 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.

Australia

This prospectus supplement and the accompanying prospectus:

- Do not constitute a product disclosure document or a prospectus under Chapter 6D.2 of the Corporations Act 2001 (Cth) (the "Corporations Act");
- Have not been, and will not be, lodged with the Australian Securities and Investments Commission ("ASIC"), as a disclosure document for the purposes of the Corporations Act and does not purport to include the information required of a disclosure document under Chapter 6D.2 of the Corporations Act;
- Do not constitute or involve a recommendation to acquire, an offer or invitation for issue or sale, an offer or invitation to arrange the issue or sale, or an issue or sale, of interests to a "retail client" (as defined in section 761G of the Corporations Act and applicable regulations) in Australia; and
- May only be provided in Australia to select investors who are able to demonstrate that they fall within one or more of the categories of investors, or Exempt Investors, available under section 708 of the Corporations Act.

The shares of our common stock may not be directly or indirectly offered for subscription or purchased or sold, and no invitations to subscribe for or buy the shares may be issued, and no draft or definitive offering memorandum, advertisement or other offering material relating to any shares may be distributed in Australia, except where disclosure to investors is not required under Chapter 6D of the Corporations Act or is otherwise in compliance with all applicable Australian laws and regulations. By submitting an application for the shares, you represent and warrant to us that you are an Exempt Investor.

As any offer of shares under this prospectus supplement and accompanying prospectus will be made without disclosure in Australia under Chapter 6D.2 of the Corporations Act, the offer of those securities for resale in Australia within 12 months may, under section 707 of the Corporations Act, require disclosure to investors under Chapter 6D.2 if none of the exemptions in section 708 applies to that resale. By applying for the shares you undertake to us that you will not, for a period of 12 months from the date of issue of the shares, offer, transfer, assign or otherwise alienate those shares to investors in Australia except in circumstances where disclosure to investors is not required under Chapter 6D.2 of the Corporations Act or where a compliant disclosure document is prepared and lodged with ASIC.

Hong Kong

The shares of our common stock have not been offered or sold and will not be offered or sold in Hong Kong, by means of any document, other than (a) to "professional investors" as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong and any rules made under that Ordinance; or (b) in other circumstances which do not result in the document being a "prospectus" as defined in the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32) of Hong Kong or which do not constitute an offer to the public within the meaning of that Ordinance. No advertisement, invitation or document relating to the shares has been or may be issued or has been or may be in the possession of any person for the purposes of issue, 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 securities laws of Hong Kong) other than with respect to shares which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" as defined in the Securities and Futures Ordinance and any rules made under that Ordinance.

Singapore

This prospectus supplement and the accompanying prospectus have 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 may not be circulated or distributed, nor may the shares 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, or to any person arising from an offer referred to in Section 275(1A) or See prior footnote. 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 37A of the Securities and Futures (Offers of Investments) (Securities and Securities-based Derivatives Contracts) Regulations 2018.

Singapore SFA Product Classification -- In connection with Section 309B of the SFA and the CMP Regulations 2018, unless otherwise specified before an offer of shares, we have determined, and hereby notify all relevant persons (as defined in Section 309A(1) of the SFA), that shares of our common stock are "prescribed capital markets products" (as defined in the CMP Regulations 2018) and Excluded Investment Products (as defined in MAS Notice SFA 04-N12: Notice on the Sale of Investment Products and MAS Notice FAA-N16: Notice on Recommendations on Investment Products).

Japan

The shares of our common stock have not been and will not be registered pursuant to Article 4, Paragraph 1 of the Financial Instruments and Exchange Act. Accordingly, none of the shares nor any interest therein may be offered or sold, directly or indirectly, in Japan or to, or for the benefit of, any "resident" of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for re-offering or resale, directly or indirectly, in Japan or to or for the benefit of a resident of Japan, 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.

LEGAL MATTERS

The validity of the shares of common stock offered hereby will be passed upon for us by Wilson Sonsini Goodrich & Rosati, P.C., Palo Alto, California. Certain legal matters in connection with this offering will be passed upon for the underwriters by Latham & Watkins LLP, Costa Mesa, California.

EXPERTS

The financial statements incorporated in this prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2019 have been so incorporated 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 ADDITIONAL INFORMATION; INCORPORATION BY REFERENCE

We file annual, quarterly and other reports, proxy statements and other information with the SEC. The SEC maintains a web site that contains periodic and current reports, proxy and information statements and other information about issuers, such as us, that file electronically with the SEC. The address of that website is www.sec.gov.

Our website address is www.silkroadmed.com. The information on our website, or that can be accessed through our web site, however, is not, and should not be deemed to be, a part of this prospectus.

We have filed a registration statement on Form S-3 with the SEC under the Securities Act of 1933, as amended. The accompanying prospectus is part of the registration statement but the registration statement includes and incorporates by reference additional information and exhibits. The SEC permits us to "incorporate by reference" the information contained in documents we file with the SEC, which means that we can disclose important information to you by referring you to those documents rather than by including them in this prospectus supplement or the accompanying prospectus. Information that is incorporated by reference is considered to be part of this prospectus supplement and the accompanying prospectus and you should read it with the same care that you read this prospectus supplement and the accompanying prospectus. Later information that we file with the SEC will automatically update and supersede the information that is either contained, or incorporated by reference, in this prospectus supplement and the accompanying prospectus, and will be considered to be a part of this prospectus supplement and the accompanying prospectus from the date those documents are filed. We have filed with the SEC, and incorporate by reference in this prospectus supplement and the accompanying prospectus:

- Our Annual Report on Form 10-K for the year ended December 31, 2019;
- Exhibit 4.5 to our Annual Report on Form 10-K for the year ended December 31, 2019; and
- Our Current Report on Form 8-K filed on April 2, 2020.

We also incorporate by reference any future filings (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items unless such Form 8-K expressly provides to the contrary) made with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act until we file a post-effective amendment that indicates the termination of the offering of the securities made by this prospectus and will become a part of this prospectus from the date that such documents are filed with the SEC. Information in such future filings updates and supplements the information provided in this prospectus. Any statements in any such future filings will automatically be deemed to modify and supersede any information in any document we previously filed with the SEC that is incorporated or deemed to be incorporated herein by reference to the extent that statements in the later filed document modify or replace such earlier statements.

We will furnish without charge to each person, including any beneficial owner, to whom a prospectus is delivered, upon written or oral request, a copy of any or all of the documents incorporated by reference, including exhibits to these documents. Any such request may be made by writing or telephoning us at the following address or phone number:

Silk Road Medical, Inc.
1213 Innsbruck Drive
Sunnyvale, California 94089
(408) 720-9002
Attn: Investor Relations
Email: info@silkroadmed.com

We will not, however, send exhibits to those documents, unless the exhibits are specifically incorporated by reference in those documents.

We make available free of charge on our website our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports, as soon as reasonably practicable after we electronically file or furnish such materials to the SEC. You may obtain a free copy of these reports on the Investor Relations section of our website, www. silkroadmed.com.

PROSPECTUS

SILK ROAD MEDICAL, INC.

Common Stock
Preferred Stock
Debt Securities
Warrants
Purchase Contracts
Units

We may offer and sell the securities identified above from time to time in one or more offerings. This prospectus provides you with a general description of the securities.

Each time we offer and sell securities, we will provide a supplement to this prospectus that contains specific information about the offering and the amounts, prices and terms of the securities. We may also authorize one or more free writing prospectuses to be provided to you in connection with these offerings. The supplement and any related free writing prospectus may also add, update or change information contained in this prospectus with respect to that offering. You should carefully read this prospectus, the applicable prospectus supplement and any related free writing prospectus, together with any documents incorporated by reference, before you invest in any of our securities.

We may offer and sell the securities described in this prospectus, any prospectus supplement and any related free writing prospectus to or through one or more underwriters, dealers and agents, or directly to purchasers, or through a combination of these methods on a continuous or delayed basis. If any underwriters, dealers or agents are involved in the sale of any of the securities, their names and any applicable purchase price, fee, commission or discount arrangement between or among them will be set forth, or will be calculable from the information set forth, in the applicable prospectus supplement. The price of our public securities and the net proceeds we expect to receive from the sale of such securities will also be set forth in a prospectus supplement. See the sections of this prospectus entitled “About this Prospectus” and “Plan of Distribution” for more information.

Our common stock is listed on The Nasdaq Global Select Market (“Nasdaq”) under the symbol “SILK.”

In addition, the selling securityholders described in this prospectus may from time to time offer or sell shares of our common stock. The selling securityholders may offer and sell our common stock to or through one or more underwriters, dealers and agents, or directly to purchasers, or through a combination of these methods on a continuous or delayed basis. If any underwriters, dealers or agents are involved in the sale of our common stock by the selling securityholders, their names and any applicable purchase price, fee, commission or discount arrangement between or among them will be set forth, or will be calculable from the information set forth, in the applicable prospectus supplement. The price to the public of our common stock and the net proceeds any selling securityholders expect to receive from the sale of such common stock will also be set forth in a prospectus supplement. We will not receive any proceeds from the sale of shares of our common stock by the selling securityholders. See the sections of this prospectus entitled “About this Prospectus” and “Plan of Distribution” for more information.

WE ARE AN EMERGING GROWTH COMPANY AND A SMALLER REPORTING COMPANY AS DEFINED UNDER FEDERAL SECURITY LAWS AND, AS SUCH, MAY ELECT TO COMPLY WITH CERTAIN REDUCED PUBLIC COMPANY REPORTING REQUIREMENTS FOR FUTURE FILINGS. INVESTING IN OUR SECURITIES INVOLVES A HIGH DEGREE OF RISK. SEE “RISK FACTORS” BEGINNING ON PAGE 3 OF THIS PROSPECTUS AND IN ANY SIMILAR SECTION CONTAINED IN OR INCORPORATED BY REFERENCE HEREIN OR IN THE APPLICABLE PROSPECTUS SUPPLEMENT CONCERNING FACTORS YOU SHOULD CONSIDER BEFORE INVESTING IN OUR SECURITIES.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

No securities may be sold without delivery of this prospectus and the applicable prospectus supplement describing the method and terms of the offering of such securities.

The date of this prospectus is May 5, 2020.

Table of Contents

	Page		Page
ABOUT THIS PROSPECTUS	1	DESCRIPTION OF SECURITIES	10
THE COMPANY	2	PLAN OF DISTRIBUTION	11
RISK FACTORS	3	LEGAL MATTERS	13
USE OF PROCEEDS	7	EXPERTS	13
SELLING SECURITYHOLDERS	8	WHERE YOU CAN FIND ADDITIONAL INFORMATION; INCORPORATION BY REFERENCE	13
DESCRIPTION OF CAPITAL STOCK	9		

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the U.S. Securities and Exchange Commission (the "SEC") as a "well-known seasoned issuer" as defined in Rule 405 under the Securities Act of 1933, as amended, using a "shelf" registration process. By using a shelf registration statement, we may sell securities and the selling securityholders may sell common stock from time to time and in one or more offerings as described in this prospectus. Each time that we or any selling securityholders offer and sell securities pursuant to this prospectus, we will provide a prospectus supplement to this prospectus that contains specific information about the securities being offered and sold (including, if applicable, the number of shares of our common stock that each of the selling securityholders will be selling) and the specific terms of that offering and, to the extent appropriate, any updates to the information about us contained in this prospectus. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings. The prospectus supplement may also add, update or change information contained in this prospectus with respect to that offering. If there is any inconsistency between the information in this prospectus and the applicable prospectus supplement and any related free writing prospectus, you should rely on the applicable prospectus supplement and any related free writing prospectus. Before purchasing any securities, you should carefully read both this prospectus, the applicable prospectus supplement and any related free writing prospectus, together with the additional information described under the heading "Where You Can Find Additional Information; Incorporation by Reference."

We and the selling securityholders have not authorized anyone to provide you with any information or to make any representations other than those contained or incorporated by reference in this prospectus, any applicable prospectus supplement or any free writing prospectus prepared by or on behalf of us and the selling securityholders or to which we have referred you. We and the selling securityholders take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We and the selling securityholders are not making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus, the applicable prospectus supplement to this prospectus and any related free writing prospectus is accurate as of the date on its respective cover or as otherwise specified therein and that any information incorporated by reference is accurate only as of the date of the document incorporated by reference, unless we indicate otherwise. Our business, financial condition, results of operations and prospects may have changed since those dates. This prospectus incorporates by reference, and any prospectus supplement or free writing prospectus may contain and incorporate by reference, market data and industry statistics and forecasts that are based on independent industry publications and other publicly available information. Although we believe these sources are reliable, we do not guarantee the accuracy or completeness of this information and we have not independently verified this information. Although we are not aware of any misstatements regarding the market and industry data presented in this prospectus and the documents incorporated by reference in this prospectus, these estimates involve risks and uncertainties and are subject to change based on various factors, including those discussed under the heading "Risk Factors" contained or incorporated by reference in this prospectus, the applicable prospectus supplement and any related free writing prospectus and under similar headings in other documents that are incorporated by reference into this prospectus or the applicable prospectus supplement. Accordingly, investors should not place undue reliance on this information.

When we refer to "Silk Road Medical," "we," "our," "us" and the "Company" in this prospectus, we mean Silk Road Medical, Inc., unless the context indicates otherwise or unless otherwise specified. When we refer to "you," we mean the holders of the applicable series of securities.

THE COMPANY

Silk Road Medical, Inc. was incorporated in the state of Delaware on March 21, 2007. 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 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 ENROUTE stent.

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. Our common stock is currently listed on Nasdaq under the symbol “SILK.”

RISK FACTORS

Investing in our securities involves a high degree of risk. Before making a decision to invest in our securities, in addition to carefully considering the other information contained in this prospectus, in any accompanying prospectus supplement and incorporated by reference herein or therein, you should carefully consider the risks described below, as well as under the caption "Risk Factors" contained in the applicable prospectus supplement, and any related free writing prospectus, and the risks discussed under the caption "Risk Factors" contained in our most recent annual report on Form 10-K and in any of our quarterly reports on Form 10-Q since our most recent annual report on Form 10-K, as well as any amendments thereto, which are incorporated by reference into this prospectus or the applicable prospectus supplement in their entirety, together with other information in this prospectus, any prospectus supplement, the documents incorporated by reference, and any free writing prospectus that we may authorize for use in connection with a specific offering. See "Where You Can Find Additional Information; Incorporation by Reference."

Risks Related to Our Business

The COVID-19 pandemic and efforts to reduce its spread has impacted, and may in the future periods negatively impact, our business and operations.

The spread of COVID-19 in the United States has resulted in travel restrictions impacting our sales professionals and therapy development specialists who support them. However, our field-based team continues to be available to support TCAR procedures, either in person or virtually. Our field team may, however, choose not to enter hospitals due to preexisting conditions, personal choice, or on doctors' orders or may be unable to enter hospitals due to hospital policy. We have also cancelled our training programs, resulting in fewer new physicians trained on the TCAR procedure relative to our plans. In addition, hospitals may reduce staffing and postpone certain procedures in response to COVID-19 or divert resources to treat those patients with COVID-19. Some hospitals have also limited access for non-patients, including our sales professionals and therapy development specialists, which has negatively impacted our access to physicians and their patients. New hospital sanitization and social distancing protocols, as well as increased competition for operating room and hybrid operating rooms within hospitals that have dedicated certain resources only to COVID patients, may impact our business and operations. Additionally, we anticipate that an increase in the unemployment rate due to the impact of COVID-19 will decrease the number of potential patients with access to health insurance, which may result in fewer diagnoses, lower number of procedures, or result in a shift to procedures which are reimbursed by government payers. As hospitals cancel and defer elective surgeries, it reduces their revenue and impacts their financial results, which could result in pricing pressure on our products as they seek cost savings. Prolonged restrictions relating to COVID-19 could adversely affect our sales and the revenue we derive as a result.

We expect these challenges to continue to impact our number of procedures through the second quarter of 2020, and perhaps for the remainder of 2020 and into 2021, but its extent cannot be quantified at this time. Our customers' patients are also experiencing the economic impact of the current epidemic. Even an important surgical procedure like TCAR may be less of a priority than other items for those patients who have lost their jobs, are furloughed, have reduced work hours or are worried about the continuation of their medical insurance. Patients may also be reluctant to visit their physicians or hospitals due to fear of contracting COVID-19. Physicians are not performing as many diagnostic tests for their patients and the labs where these tests are performed may not be open, staffed adequately or open the entire day. Even where physicians continue to treat symptomatic patients, treatment of asymptomatic patients is being deferred in many cases. The reduction in diagnostic testing and physician visits, the increase in deferred treatment, and patient behaviors are translating into fewer TCAR procedures performed in the current environment.

Governmental mandates related to COVID-19 or other infectious diseases have impacted, and we expect them to continue to impact, our personnel and personnel at third-party manufacturing facilities in the United States and other countries, or the availability or cost of materials, which would disrupt our supply chain and/or reduce our margins. For instance, on or about March 16, 2020, the Health Officers of the county of Santa Clara, where our headquarters, distribution and ENROUTE NPS assembly and packaging facility is located, issued a mandatory shelter-in-place order through April 7, 2020 that was later extended through May 31, 2020. While we have continued

to operate with remote employees and essential employees on site, an extended implementation of this governmental mandate could impact our ability to operate effectively and conduct ongoing manufacturing or research and development. However, we are considered an essential business under applicable state rules and can restart our manufacturing operations at any time. We have necessary components and raw materials on hand and appropriate distancing policies and protocols established to continue manufacturing operations. Additionally, we believe we have finished goods inventory on hand to react appropriately to an increase in demand. We anticipate that even if there is a significant increase in demand for our products due to the deferred procedure volume backlog, new sanitization protocols and other capacity constraints may limit the efficient distribution of our finished products if the impact of COVID-19 is prolonged.

While we expect the COVID-19 pandemic to impact our business over the short term as some procedures are temporarily deferred, we have taken swift and proactive measures to minimize business disruptions and preserve financial flexibility. In assessing our own cash conservation options, we have taken preemptive steps to curtail near-term spending, including delaying previously contemplated executive salary increases, slowing hiring initiatives and reducing non-essential sales, general, and administrative expenses. Some expenses planned for the second quarter of 2020, including physician training courses and advertising campaigns, are being deferred to later time periods. In the event that COVID-19 continues to limit our sales and resulting revenue, we may have to reduce our employees' work hours, furlough employees, reduce salaries, variable compensation and benefits, or implement a reduction-in-force. We may also solicit voluntary leaves of absence from our employees as we implement cash conservation strategies. Our ongoing operations may be impacted as a result of employees assuming additional roles and responsibilities within our organization and we would have fewer resources available to run our operations, which would reduce our expenses, but could also negatively impact our business operations and revenue as a result. We may also encounter voluntary departures of key employees due to any of the foregoing actions that we undertake. If key personnel or large groups of our employees contract the virus, that may also impact our business and operations. In the meantime, we have taken steps to provide for our employees, including providing the ability for employees to work remotely and implementing strategies to support appropriate social distancing techniques for future interactions. We are also assessing our business continuity plans in the context of this pandemic.

The outbreak and persistence of COVID-19 in international markets that we have targeted for our international expansion may also delay preparation for and launch of such expansion efforts. Regulatory timelines for approval in some countries have been delayed. The spread of an infectious disease, including COVID-19, could also result in the inability of our suppliers to deliver components or raw materials to us on a timely basis. If there were a shortage of supply, the cost of these materials or components may increase and harm our ability to provide our products on a cost-effective basis. In connection with any supply shortages in the future, reliable and cost-effective replacement sources may not be available on short notice or at all, and this may force us to increase prices and face a corresponding decrease in demand for our products. In the event that any of our suppliers were to discontinue production of our key product components, developing alternate sources of supply for these components would be time consuming, difficult and costly. The extent to which COVID-19 impacts our business will depend on future developments, which are highly uncertain and cannot be predicted, including the duration and severity of the pandemic, the actions taken to reduce its transmission, and the speed with which normal economic and operating conditions resume, among others.

As permitted by the CARES Act, we have deferred the employer portion of social security taxes and plan to apply for employee retention credits. We continue to review and may seek other available benefits under CARES Act. We cannot predict the manner in which such benefits will be allocated or administered and we cannot assure you that we will be able to access such benefits in a timely manner or at all. Certain of the benefits under the CARES Act have not previously been administered on the present scale or at all. Government or third party program administrators may impose additional conditions and restrictions on our operations and the benefits may otherwise provide less relief than we contemplate. If the U.S. government or any other governmental authority agrees to provide crisis relief assistance that we accept, it may impose certain requirements on the recipients of the aid, including restrictions on executive officer compensation, dividends, prepayment of debt, limitations on debt and other similar restrictions that will apply for a period of time after the aid is repaid or redeemed in full. We cannot assure you that any such government crisis relief assistance will not significantly limit our corporate activities or be on terms that are favorable to us. Such restrictions and terms could adversely impact our business and operations.

Finally, we anticipate that the COVID-19 pandemic may impact clinical and regulatory matters. While we do not have any clinical trials currently in process for regulatory purposes, COVID-19 is delaying enrollment in new clinical trials across the medical device industry and may affect any new trials we decide to pursue. Our ongoing diffusion weighted imaging trials in the US and Europe are experiencing patient enrollment delays. Additionally, we may experience regulatory delays in our effort to seek a label expansion for the ENROUTE stent in standard surgical risk patients, as the FDA has from time to time diverted resources to address the impact of COVID-19. If COVID-19 continues to spread, we may experience disruptions that could have a material adverse impact on our clinical trial plans and timelines, including:

- Delays in receiving authorizations from local regulatory authorities to initiate planned clinical trials;
- Delays or difficulties in enrolling patients in our clinical trials;
- Delays or difficulties in clinical site initiation, including difficulties in recruiting clinical site investigators and clinical site staff;
- Delays in clinical sites receiving the supplies and materials needed to conduct our clinical trials, including interruptions in global shipping that may affect the transport of clinical trial materials;
- Changes in local regulations as part of a response to the COVID-19 pandemic which may require us to change the ways in which our clinical trials are conducted, which may result in unexpected costs, or to discontinue the clinical trials altogether;
- Diversion of healthcare resources away from the conduct of clinical trials, including the diversion of hospitals serving as our clinical trial sites and hospital staff supporting the conduct of our clinical trials;
- Interruption of key clinical trial activities, such as clinical trial site monitoring, due to limitations on travel imposed or recommended by federal or state governments, employers and others, or interruption of clinical trial subject visits and study procedures, the occurrence of which could affect the integrity of clinical trial data;
- Risk that participants enrolled in our clinical trials will acquire COVID-19 while the clinical trial is ongoing, which could impact the results of the clinical trial, including by increasing the number of observed adverse events;
- Delays in necessary interactions with local regulators, ethics committees and other third parties and contractors due to limitations in employee resources or forced furlough of government employees;
- Limitations in employee resources that would otherwise be focused on the conduct of our clinical trials, including because of sickness of employees or their families or the desire of employees to avoid contact with large groups of people; and
- Refusal of the FDA to accept data from clinical trials in affected geographies.

Any of these occurrences may significantly harm our business, financial condition and prospects. In addition, many of the factors that cause, or lead to, a delay in the commencement or completion of clinical trials may also ultimately lead to the denial of regulatory approval of our product candidates.

In addition, the FDA and other global health regulatory agencies may also experience disruptions in their operations as a result of the COVID-19 pandemic. The FDA and comparable foreign regulatory agencies may have slower response times or be under-resourced and, as a result, review, inspection and other timelines may be materially delayed. For example, in response to the global pandemic of COVID-19, on March 10, 2020 the FDA announced its intention to postpone most foreign inspections of manufacturing facilities and products, and subsequently, on March 18, 2020, the FDA announced its intention to temporarily postpone routine surveillance inspections of domestic manufacturing facilities. Regulatory authorities outside the United States may adopt similar restrictions or other policy measures in response to the COVID-19 pandemic. It is unknown how long such delays or

disruptions could last. Any elongation or de-prioritization of our clinical or other product development activities or delay in regulatory review resulting from such disruptions could materially affect our results of operations.

The ultimate impact of COVID-19 is highly uncertain and subject to change. This impact could have a material, adverse impact on our liquidity, capital resources, operations and business and those of the third parties on which we rely. The extent to which COVID-19 impacts our results will depend on future developments, which are highly uncertain and cannot be predicted, including new information which may emerge concerning the severity of COVID-19 and the actions to contain COVID-19 or treat its impact, among others. We do not yet know the full extent of potential delays or impacts on our business, financial condition and results of operations. Additionally, while the potential economic impact brought by, and the duration of, the COVID-19 pandemic is difficult to assess or predict, the impact of COVID-19 on the global financial markets may reduce our ability to access capital, which could negatively impact our short-term and long-term liquidity and our ability to operate.

Unfavorable global economic conditions could adversely affect our business, financial condition or results of operations.

Our results of operations could be adversely affected by general conditions in the global economy and in the global financial markets. The global financial crisis caused extreme volatility and disruptions in the capital and credit markets. A severe or prolonged economic downturn, such as the global financial crisis, could result in a variety of risks to our business, including driving hospitals to tighten budgets and curtail spending, which would negatively impact our sales and business. In addition, higher unemployment or reductions in business benefits plans could result in fewer commercially insured patients, which could negatively impact our revenue and business as a result. A weak or declining economy could also strain our manufacturers or suppliers, possibly resulting in supply disruption, or cause our customers to delay making payments for our services. Any of the foregoing could harm our business and we cannot anticipate all of the ways in which the economic climate and financial market conditions could adversely affect our business.

USE OF PROCEEDS

We will set forth in the prospectus supplement our intended use for the net proceeds received from the sale of any securities. We will retain broad discretion over the use of the net proceeds to us from the sale of our securities under this prospectus. Unless otherwise provided in the applicable prospectus supplement, we intend to use the net proceeds from the sale of securities under this prospectus for general corporate purposes, which may include funding research and development of our products, increasing our working capital, acquisitions or investments in businesses, joint ventures, collaboration arrangements, products or technologies that are complementary to our own and capital expenditures. Pending our use of the net proceeds from this offering, we intend to invest the net proceeds in a variety of capital preservation investments, including short-term, investment grade, interest bearing instruments such as money market funds, certificates of deposit, commercial paper and U.S. government securities.

We will not receive any of the proceeds from the sale of our securities by selling securityholders.

SELLING SECURITYHOLDERS

This prospectus also relates to the possible resale by certain of our stockholders, who we refer to in this prospectus as the "selling securityholders," of shares of common stock. Information about any selling securityholders, where applicable, including their identities and the number of shares of common stock to be registered on their behalf, will be set forth in a prospectus supplement, in a post-effective amendment, in a free writing prospectus or in filings we make with the SEC under the Exchange Act that are incorporated by reference. The selling securityholders shall not sell any shares of our common stock pursuant to this prospectus until we have identified such selling securityholders and the shares being offered for resale by such selling securityholders. However, the selling securityholders may sell or transfer all or a portion of their shares of our common stock pursuant to any available exemption from the registration requirements of the Securities Act.

DESCRIPTION OF CAPITAL STOCK

The description of our capital stock is incorporated by reference to Exhibit 4.5 to our Annual Report on Form 10-K for the year ended December 31, 2019, filed with the SEC on March 2, 2020.

Preferred Stock

Our board of directors has the authority, without further action by our stockholders, to issue up to 5,000,000 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. No shares of preferred stock are outstanding, and we have no present plan to issue any shares of preferred stock.

DESCRIPTION OF SECURITIES

We may issue from time to time, in one or more offerings, the following securities:

- Shares of common stock, par value $0.001 per share, of the Company;
- Shares of preferred stock, par value $0.001 per share, of the Company;
- Debt securities, which may be senior or subordinated, and which may be convertible into our common stock or be non-convertible;
- Warrants to purchase from us shares of our common stock or preferred stock or other securities;
- Purchase contracts; and
- Units representing two or more of the foregoing securities.

In addition, the selling securityholders may offer and sell from time to time, in one or more offerings, shares of common stock as described in this prospectus.

We will set forth in the applicable prospectus supplement and/or free writing prospectus a description of the securities that may be offered by us or the selling securityholders under this prospectus. The terms of the offering of securities, the offering price and the net proceeds to us or the selling securityholders will be contained in the prospectus supplement, and other offering material, relating to such offer.

PLAN OF DISTRIBUTION

We or the selling securityholders may sell our securities from time to time in one or more transactions. We or the selling securityholders may sell our securities to or through agents, underwriters, dealers, remarketing firms or other third parties or directly to one or more purchasers or through a combination of any of these methods. We may issue common stock as a dividend or distribution. In some cases, we or dealers acting with us or on behalf of us may also purchase our securities and reoffer them to the public. We or the selling securityholders may also offer and sell, or agree to deliver, our securities pursuant to, or in connection with, any option agreement or other contractual arrangement.

Agents whom we or the selling securityholders designate may solicit offers to purchase our securities.

- We or the selling securityholders will name any agent involved in offering or selling our securities, and disclose any commissions that we will pay to the agent, in the applicable prospectus supplement.
- Unless we or the selling securityholders indicate otherwise in the applicable prospectus supplement, agents will act on a best efforts basis for the period of their appointment.
- Agents may be deemed to be underwriters under the Securities Act, of any of our securities that they offer or sell.

We or the selling securityholders may use an underwriter or underwriters in the offer or sale of our securities.

- If we or the selling securityholders use an underwriter or underwriters, we or the selling securityholders will execute an underwriting agreement with the underwriter or underwriters at the time that we reach an agreement for the sale of our securities.
- We or the selling securityholders will include the names of the specific managing underwriter or underwriters, as well as the names of any other underwriters, and the terms of the transactions, including the compensation the underwriters and dealers will receive, in the applicable prospectus supplement.
- The underwriters will use the applicable prospectus supplement, together with this prospectus, to sell our securities.

We or the selling securityholders may use a dealer to sell our securities.

- If we or the selling securityholders use a dealer, we will sell our securities to the dealer, as principal.
- The dealer will then sell our securities to the public at varying prices that the dealer will determine at the time it sells our securities.
- We or the selling securityholders will include the name of the dealer and the terms of the transactions with the dealer in the applicable prospectus supplement.

We or the selling securityholders may solicit directly offers to purchase our securities, and we or the selling securityholders may directly sell our securities to institutional or other investors. We or the selling securityholders will describe the terms of direct sales in the applicable prospectus supplement.

We or the selling securityholders may engage in at the market offerings into an existing trading market in accordance with Rule 415(a)(4) of the Securities Act.

We or the selling securityholders may indemnify agents, underwriters and dealers against certain liabilities, including liabilities under the Securities Act. Agents, underwriters and dealers, or their affiliates, may be customers of, engage in transactions with or perform services for us or our respective affiliates or the selling securityholders, in the ordinary course of business.

We or the selling securityholders may authorize agents and underwriters to solicit offers by certain institutions to purchase our securities at the public offering price under delayed delivery contracts.

- If we or the selling securityholders use delayed delivery contracts, we will disclose that we are using them in the prospectus supplement and will tell you when we or the selling securityholders will demand payment and when delivery of our securities will be made under the delayed delivery contracts.
- These delayed delivery contracts will be subject only to the conditions that we or the selling securityholders describe in the prospectus supplement.
- We or the selling securityholders will describe in the applicable prospectus supplement the commission that underwriters and agents soliciting purchases of our securities under delayed delivery contracts will be entitled to receive.

Any underwriter, agent or dealer that is a Financial Industry Regulatory Authority member is not permitted to sell our securities in an offering to accounts over which it exercises discretionary authority without the prior specific written approval of its customer.

Unless otherwise specified in connection with a particular underwritten offering of our securities, the underwriters will not be obligated to purchase offered securities unless specified conditions are satisfied, and if the underwriters do purchase any offered securities, they will purchase all offered securities.

In connection with underwritten offerings of the offered securities and in accordance with applicable law and industry practice, the underwriters in certain circumstances are permitted to engage in certain transactions that stabilize the price of our securities. Such transactions consist of bids or purchases for the purpose of pegging, fixing or maintaining the price of our securities. If the underwriters create a short position in our securities in connection with the offering (*i.e.*, if they sell more securities than are set forth on the cover page of the applicable prospectus supplement), the underwriters may reduce that short position by purchasing our securities in the open market or as otherwise provided in the applicable prospectus supplement. The underwriters also may impose a penalty bid, whereby selling concessions allowed to dealers participating in the offering may be reclaimed if the securities sold by them are repurchased in connection with stabilization transactions. In general, purchases of a security for the purpose of stabilization or to reduce a short position could cause the price of the security to be higher than it might be in the absence of such purchases. The imposition of a penalty bid might also have an effect on the price of our securities to the extent that it were to discourage resales of our securities. The underwriters are not required to engage in these activities and may end any of these activities at any time.

We or the selling securityholders may effect sales of securities in connection with forward sale, option or other types of agreements with third parties. Any distribution of securities pursuant to any forward sale agreement may be effected from time to time in one or more transactions that may take place through a stock exchange, including block trades or ordinary broker's transactions, or through broker-dealers acting either as principal or agent, or through privately-negotiated transactions, or through an underwritten public offering, or through a combination of any such methods of sale, at market prices prevailing at the time of sale, at prices relating to such prevailing market prices or at negotiated or fixed prices.

The specific terms of the lock-up provisions, if any, in respect of any given offering will be described in the applicable prospectus supplement.

Selling securityholders may use this prospectus in connection with resales of securities they hold as described in the applicable prospectus supplement, in a post-effective amendment, in a free writing prospectus or in filings we make with the SEC under the Exchange Act that are incorporated by reference. Selling securityholders may be deemed to be underwriters under the Securities Act in connection with the securities they resell and any profits on the sales may be deemed to be underwriting discounts and commissions under the Securities Act.

LEGAL MATTERS

Wilson Sonsini Goodrich & Rosati, P.C., Palo Alto, California, will pass upon certain legal matters relating to the issuance and sale of the securities offered hereby on behalf of Silk Road Medical, Inc. Additional legal matters may be passed upon for us or any underwriters, dealers or agents, by counsel that we will name in the applicable prospectus supplement.

EXPERTS

The financial statements incorporated in this prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2019 have been so incorporated 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 ADDITIONAL INFORMATION; INCORPORATION BY REFERENCE

Available Information

We file periodic and current reports, proxy statements and other information with the SEC. The SEC maintains a web site that contains periodic and current reports, proxy and information statements and other information about issuers, such as us, who file electronically with the SEC. The address of that website is http://www.sec.gov.

Our website address is www.silkroadmed.com. The information on our website, or that can be accessed through our web site, however, is not, and should not be deemed to be, a part of this prospectus.

This prospectus and any prospectus supplement are part of a registration statement that we filed with the SEC and do not contain all of the information in the registration statement. The full registration statement may be obtained from the SEC or us, as provided below. Forms of the indenture and other documents establishing the terms of the offered securities are or may be filed as exhibits to the registration statement. Statements in this prospectus or any prospectus supplement about these documents are summaries and each statement is qualified in all respects by reference to the document to which it refers. You should refer to the actual documents for a more complete description of the relevant matters.

Incorporation by Reference

The SEC's rules allow us to "incorporate by reference" information into this prospectus, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is deemed to be part of this prospectus, and subsequent information that we file with the SEC will automatically update and supersede that information. Any statement contained in a previously filed document incorporated by reference will be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus modifies or replaces that statement.

We incorporate by reference our documents listed below and any future filings made by us with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, which we refer to as the "Exchange Act" in this prospectus, between the date of this prospectus and the termination of the offering of the securities described in this prospectus. We are not, however, incorporating by reference any documents or portions thereof, whether specifically listed below or filed in the future, that are not deemed "filed" with the SEC, including any information furnished pursuant to Items 2.02 or 7.01 of Form 8-K or related exhibits furnished pursuant to Item 9.01 of Form 8-K.

This prospectus and any accompanying prospectus supplement incorporate by reference the documents set forth below that have previously been filed with the SEC:

- Our Annual Report on Form 10-K for the year ended December 31, 2019;
- Exhibit 4.5 to our Annual Report on Form 10-K for the year ended December 31, 2019;
- Our Current Report on Form 8-K filed on April 2, 2020; and

- The description of our common stock, par value $0.001 per share, contained in our registration statement on Form 8-A, filed with the SEC on March 27, 2019, including any subsequent filed amendments and reports updating such description.

All reports and other documents we subsequently file pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act prior to the termination of this offering but excluding any information furnished to, rather than filed with, the SEC, will also be incorporated by reference into this prospectus and deemed to be part of this prospectus from the date of the filing of such reports and documents.

We will provide to each person, including any beneficial owner, to whom this prospectus is delivered, upon written or oral request, at no cost to the requester, any of the documents incorporated by reference in this prospectus (other than exhibits, unless they are specifically incorporated by reference in the documents).

Requests for such documents should be directed to:

Silk Road Medical, Inc.
1213 Innsbruck Drive
Sunnyvale, California 94089
(408) 720-9002
Attn: Investor Relations
Email: info@silkroadmed.com

Exhibits to the filings will not be sent, however, unless those exhibits have specifically been incorporated by reference in this prospectus and any accompanying prospectus supplement.

The information accessible through any website referred to in this prospectus or any document incorporated herein is not, and should not be deemed to be, a part of this prospectus.

$100,000,000

Common Stock

Prospectus Supplement

J.P. Morgan
BofA Securities
Citigroup
Stifel

May , 2020