As filed with the Securities and Exchange Commission on September 24, 2020.

Registration Statement No. 333-248635

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

Amendment No. 1 to
FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

PULMONX CORPORATION
(Exact name of registrant as specified in its charter)

Delaware	3841	77-0424412
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

700 Chesapeake Drive
Redwood City, California 94063
1-650-364-0400
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Glendon E. French
Chief Executive Officer
Pulmonx Corporation
700 Chesapeake Drive
Redwood City, California 94063
1-650-364-0400
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Mark B. Weeks **Seth J. Gottlieb** **Sepideh Mousakhani** **Cooley LLP** **3175 Hanover Street** **Palo Alto, California 94304** **(650) 843-5000**	**Derrick Sung, Ph.D.** **Chief Financial Officer** **Pulmonx Corporation** **700 Chesapeake Drive** **Redwood City, California 94063** **(650) 364-0400**	**Ilir Mujalovic** **Shearman & Sterling LLP** **599 Lexington Avenue** **New York, New York 10022** **(212) 848-4000**

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

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

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

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

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

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

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☒	Smaller reporting company	☒
		Emerging growth company	☒

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

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities To Be Registered	Amount To Be Registered[(1)]	Proposed Maximum Offering Price Per Share[(2)]	Proposed Maximum Aggregate Offering Price[(2)]	Amount of Registration Fee[(3)]
Common Stock, $0.001 par value per share	**7,666,667**	**$ 16.00**	**$ 122,666,672**	**$ 15,923**

(1) Includes 1,000,000 shares that the underwriters have an option to purchase.
(2) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(a) under the Securities Act of 1933, as amended.
(3) The registrant previously paid a registration fee of $11,196 in connection with a prior filing of this Registration Statement.

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

Subject to Completion
Preliminary Prospectus dated September 24, 2020

PROSPECTUS

Shares

Pulmonx Corporation

Common Stock

This is Pulmonx Corporation's initial public offering. We are selling 6,666,667 shares of our common stock.

We expect the public offering price to be between $14.00 and $16.00 per share. Currently, no public market exists for the shares of our common stock. We have applied to list our common stock on the Nasdaq Global Select Market under the symbol "LUNG."

We are an "emerging growth company" and a "smaller reporting company" as defined under the U.S. federal securities laws and, as such, may elect to comply with certain reduced public company reporting requirements for this and future filings. See "Prospectus Summary—Implications of Being an Emerging Growth Company and a Smaller Reporting Company."

Investing in our common stock involves risks that are described in the "Risk Factors" section beginning on page 15 of this prospectus.

	Per Share	Total
Public offering price	$	$
Underwriting discount(1)	$	$
Proceeds, before expenses, to us	$	$

(1) See "Underwriting" beginning on page 208 for additional information regarding underwriting compensation.

The underwriters may also exercise their option to purchase up to an additional 1,000,000 shares of common stock from us, at the initial public offering price, less the underwriting discount, for 30 days after the date of this prospectus.

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

The shares of common stock will be ready for delivery on or about , 2020.

BofA Securities **Morgan Stanley**

Stifel **Wells Fargo Securities** **Canaccord Genuity**

The date of this prospectus is , 2020

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We have not, and the underwriters have not, authorized anyone to provide any information or to make any representations other than those contained in this prospectus or in any free writing prospectuses prepared by or on behalf of us or to which we have referred you. We and the underwriters take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This prospectus is an offer to sell only the shares of common stock offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus or in any applicable free writing prospectus is current only as of its date, regardless of its time of delivery or any sale of shares of our common stock. Our business, financial condition, results of operations and prospects may have changed since that date.

For investors outside the United States: We have not, and the underwriters have not, done anything that would permit this offering, or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the shares of common stock and the distribution of this prospectus outside of the United States.

PROSPECTUS SUMMARY

This summary highlights, and is qualified in its entirety by, the more detailed information and financial statements included elsewhere in this prospectus. This summary does not contain all of the information you should consider before investing in our common stock. You should read this entire prospectus carefully, including the sections entitled "Risk Factors," "Business" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and the related notes included elsewhere in this prospectus, before making an investment decision.

Unless the context otherwise requires, the terms "Pulmonx," "the company," "we," "us," "our" or similar terms in this prospectus refer to Pulmonx Corporation and its consolidated subsidiaries.

Overview

We are a commercial-stage medical technology company that provides a minimally invasive treatment for patients with severe emphysema, a form of chronic obstructive pulmonary disease (COPD). Our solution, which is comprised of the Zephyr Endobronchial Valve (Zephyr Valve), the Chartis Pulmonary Assessment System (Chartis System) and the StratX Lung Analysis Platform (StratX Platform), is designed to treat severe emphysema patients who, despite medical management, are still profoundly symptomatic and either do not want or are ineligible for surgical approaches. We estimate our solution currently addresses approximately 500,000 patients in the United States and 700,000 patients in select international markets, which represents a global market opportunity of approximately $12 billion.

We have a compelling body of clinical evidence with over 100 scientific articles published regarding the clinical benefits of Zephyr Valves, including in *The New England Journal of Medicine*, *The Lancet* and the *American Journal of Respiratory and Critical Care Medicine*. Multiple randomized controlled clinical trials have demonstrated that patients selected with the Chartis System and successfully treated with Zephyr Valves have shown statistically and clinically significant improvements in lung function, exercise capacity and quality of life compared to medical management alone.

In June 2018, we received pre-market approval (PMA) by the U.S. Food and Drug Administration (FDA) as a result of our breakthrough technology designation. The Zephyr Valve is now commercially available in more than 25 countries, with over 80,000 valves used to treat more than 20,000 patients through June 30, 2020. We have established reimbursement in major markets in North America, Europe and Asia Pacific and the Zephyr Valve has been included in treatment guidelines for COPD worldwide.

COPD and Emphysema: A Prevalent Disease with High Unmet Medical Needs

COPD refers to a group of lung diseases characterized by obstruction of airflow that interferes with normal breathing. In 2015, it affected approximately 175 million patients and was responsible for 3.2 million deaths globally. In the United States, COPD is the third leading cause of death and affected approximately 16 million Americans as of 2013. COPD is expected to be associated with approximately $49 billion in direct medical costs in 2020. Emphysema, a form of COPD, which accounts for approximately 25% of all COPD patients, is a debilitating and life-threatening disease that progressively destroys lung tissue, resulting in a diminishing ability to breathe and engage in the most basic daily activities, leading to a high mortality rate. The lung damage caused by emphysema is irreversible. As of 2018, approximately 3.8 million patients in the United States were diagnosed with emphysema, of which roughly 1.5 million have severe emphysema. Of these 1.5 million severe emphysema patients, we estimate that approximately 500,000 patients would qualify for treatment with our Zephyr Valves, and an additional number may be able to be treated in the future with other technologies under development by us if successfully developed and approved.

There are several treatment options for patients with emphysema, depending on the level of severity of the disease, ranging from medical management to more invasive surgical options. However, these treatment options have significant limitations for patients with severe emphysema. Initial treatment for emphysema is generally limited to medications that primarily target airway obstruction and reduce inflammation, but do not address the underlying lung tissue destruction.

As the disease worsens, symptoms increase despite optimized drug therapy, pulmonary rehabilitation exercises and supplemental oxygen. Many patients become increasingly unable to engage in the most basic daily activities as a result of the persistent feeling of breathlessness and this reduces their overall health status each year. At this point, physicians may refer patients to thoracic surgeons for single or double lung transplantation, or for lung volume reduction surgery (LVRS), in which hyperinflated tissue is cut away and removed. These invasive surgical procedures involve substantial risk of complications, prolonged hospital stays and high mortality. In addition, many patients do not qualify for these procedures. We believe there is both an urgent clinical need and a strong market opportunity for a solution that is safe, effective and minimally invasive.

Our Solution

Our solution, which is comprised of the Zephyr Valve, Chartis System and StratX Platform, is designed to address the need for a more effective, minimally invasive treatment option for patients with severe emphysema, offering bronchoscopic lung volume reduction without surgery and its associated risks. It is used to treat patients who, despite medical management, are still profoundly symptomatic and either do not want or are ineligible for surgical approaches.

Zephyr Valves are indicated for bronchoscopic treatment of adult patients with hyperinflation associated with severe emphysema in regions of the lung that have little to no collateral ventilation. During the one-time bronchoscopic procedure, Zephyr Valves are placed in the airways to occlude the most diseased parts of the lung, allowing trapped air to escape until the lobe is reduced in size. The intended result is a reduction in lung volume and hyperinflation in the targeted lobe, allowing healthier parts of the lung to expand and take in more air. Patients who are successfully treated with the Zephyr Valve report improved breathing and the ability to go back to doing everyday tasks more easily. When combined with the Chartis System for informed patient selection and treatment planning, Zephyr Valves have been shown to have successful procedure rates of 84-90% in clinical trials.

We believe our solution provides the following important benefits:

- **Significant, durable improvements in lung function, exercise capacity and quality of life,** demonstrated in a substantial body of clinical data;
- **Well-characterized safety profile,** evidenced by the inclusion in global treatment recommendations and more than 20,000 patients treated globally with the Zephyr Valve;
- **High procedural success** driven by innovative and effective patient assessment tools; and
- **Minimally invasive procedure** typically lasting less than an hour.

Over 100 scientific articles have been published regarding the clinical benefits of Zephyr Valves, including multiple meta-analyses, review articles, cost-effectiveness analyses and risk-benefit analyses. The Zephyr Valve showed statistically significant improvements in lung function, exercise capacity and quality of life when compared to medical management alone in multiple randomized controlled clinical trials. Additionally, independent studies have demonstrated that Zephyr Valves deliver increases in the BODE Index (a multi-dimensional health status scoring system for patients with COPD) that have been associated with survival benefits.

The LIBERATE study, our pivotal study published in 2018, was a multicenter, multinational, randomized controlled clinical trial of Zephyr Valves that included 190 patients with severe emphysema and little to no collateral ventilation. All primary and secondary endpoints were statistically significant, including the proportion of patients achieving a clinically significant improvement in lung function as well as the mean improvements in exercise capacity, hyperinflation and quality of life. These outcomes were the result of a high rate of procedural success, with 84% of patients achieving a clinically meaningful reduction in treated lobe volume.

Our Success Factors

We believe the continued growth of our company will be driven by the following success factors:

- ***Innovative, minimally invasive treatment paired with proprietary patient selection technology.*** We have developed the first FDA-approved implant, the Zephyr Valve, to reduce hyperinflation associated with severe emphysema, which received a breakthrough technology designation and pre-market approval. To enhance optimal outcomes with the Zephyr Valve, the Chartis System and the StratX Platform are designed to help physicians identify and treat those patients most likely to benefit from treatment with Zephyr Valves. We believe the combination of our innovative valve treatment and patient assessment tools represents a significant competitive advantage and our goal is to establish our solution as a standard of care for severe emphysema.

- ***Addressing a large underserved market.*** We are addressing a large underserved market for patients with severe emphysema whose treatment options are limited. We believe our solution currently addresses approximately 500,000 patients in the United States and 700,000 patients in select international markets who have severe emphysema with hyperinflation and limited to no collateral ventilation, representing an approximately $12 billion global market opportunity. We have established significant momentum with our broad global commercial footprint across more than 25 countries and with a track record of more than 20,000 patients treated. Additionally, we have ongoing research and development efforts to further expand the addressable market of our products.

- ***Compelling body of clinical evidence and inclusion in COPD guidance documents.*** The safety, effectiveness and clinical advantages of Zephyr Valves have been demonstrated in multiple randomized controlled clinical trials. The quality of evidence for treatment with endobronchial valves has been graded "A" by the Global Initiative for Chronic Obstructive Lung Disease (GOLD), and the United Kingdom's National Institute for Health and Care Excellence (NICE) has included this treatment as part of standard measures for COPD and recommended all qualifying patients be evaluated for eligibility.

- ***Favorable coverage and established reimbursement.*** In the United States, our solution is reimbursed based on established Category I Current Procedural Terminology (CPT) and ICD-10 Procedure Coding System (PCS) codes and associated MS-DRG and APC payment groupings. Current reimbursement in the United States is generally sufficient to cover the hospital costs of the procedure and related inpatient care. Commercial payors, such as Aetna and Humana, have issued positive coverage policies for the Zephyr Valve, and United Healthcare no longer considers the procedure unproven or experimental. Medicare covers our solution for patients when medically necessary, and other commercial insurers are approving pre-authorization requests on a case-by-case basis. We estimate that roughly 75% of the potential Zephyr Valve patient population are Medicare/Medicaid beneficiaries, of which approximately 25% have managed Medicare/Medicaid and the remaining 50% have traditional Medicare/Medicaid. Approximately 25% of the potential Zephyr Valve patient population is under third-party commercial payor policies. Outside the United States, our solution is covered by major health systems across much of Europe, Australia and South Korea.

- ***Comprehensive approach to market development and patient engagement.*** We have established a stepwise approach to market development across three key stakeholders in severe emphysema treatment: hospitals, physicians and patients. Our commercial organization is focused on working with pulmonary physicians and their hospitals to build emphysema centers of excellence where physicians are instructed in the workup of advanced COPD and perform bronchoscopic lung volume reduction using our solution. Our team works closely with all members of the hospital care team to help these centers efficiently incorporate our solution as a new service line. In addition, we are partnering with these centers to build awareness and referrals from primary care and other physicians who may be managing severe emphysema patients in the community. We build upon this approach with direct-to-patient marketing initiatives that help educate patients on the Zephyr Valve procedure and where it is available. We believe that this comprehensive approach to engagement across multiple constituents will help to increase awareness of and demand for our solution.

- ***Robust intellectual property portfolio.*** We own intellectual property that covers the Zephyr Valve and Chartis System. As of June 30, 2020, we held 33 U.S. patents and 82 international patents that include device, apparatus and method claims. In addition, we believe that our trade secrets, including manufacturing know-how, provide additional barriers to entry.

Our Growth Strategy

Our vision is to be a global leader in treating advanced lung disease and to have a transformational impact on the lives of patients. Our goal is to establish our solutions as the standard of care for the assessment and treatment of patients with severe COPD.

Key elements of our strategy to achieve this vision include:

- ***Expanding our commercial organization in the United States to drive adoption of Zephyr Valves.*** As of June 30, 2020, we sold Zephyr Valves to more than 100 hospitals and had 42 sales territory managers in the United States. We plan to expand our commercial organization by recruiting and training talented sales territory managers in existing and new markets in the United States to help facilitate further adoption and broaden awareness of Zephyr Valves primarily among the approximately 800 pulmonologists performing interventional pulmonary procedures across approximately 500 high volume hospitals.

- ***Collaborating with hospitals to address unmet patient needs.*** Our strategy is to identify regions with high unmet need, identify leading hospitals and work with champions of our solution to build emphysema centers of excellence.

- ***Promoting awareness among patients, physicians and other healthcare providers.*** We intend to continue to promote awareness of our solution through training and educating patients, physicians, pulmonary rehabilitation centers, key opinion leaders and various medical societies on the proven clinical benefits of Zephyr Valves. In addition, we intend to continue to publish additional clinical data in various industry and scientific journals and online and to present at various industry conferences.

- ***Continuing to invest in research and development to foster innovation and expand our addressable market.*** We intend to continue investing in existing and next generation technologies to address the needs of patients with severe COPD.

- ***Expanding in existing and new international markets.*** We have established a leading international sales force in interventional pulmonology. We intend to continue expanding our team and seeking additional international regulatory clearances in order to more fully penetrate this global opportunity.

- ***Driving profitability by scaling our business operations to achieve cost and production efficiencies.*** We plan to drive profitability and gross margin expansion by leveraging our manufacturing capacity to scale production volume, improve efficiencies and lower costs as we increase supply to meet the anticipated growing demands for our products.

We generated revenue of $32.6 million, with a gross margin of 68.8% and a net loss of $20.7 million, for the year ended December 31, 2019 compared to revenue of $20.0 million, with a gross margin of 61.4% and a net loss of $18.5 million, for the year ended December 31, 2018. For the six months ended June 30, 2020, we generated revenue of $12.3 million, with a gross margin of 54.2% and a net loss of $19.1 million, compared to revenue of $13.1 million, with a gross margin of 66.0% and a net loss of $11.7 million, for the six months ended June 30, 2019. As of June 30, 2020, we had an accumulated deficit of $229.6 million. We currently generate most of our revenue from the sales of Zephyr Valves and delivery catheters. We also generate a smaller amount of our revenue from our Chartis System, which is comprised of sales of the balloon catheters, usage fees and sales of the Chartis console. The

StratX Platform, while used to identify patients eligible for treatment with Zephyr Valves, does not independently generate any revenue for us.

Recent Developments

2020 Notes

In April 2020, we issued and sold convertible promissory notes in the aggregate principal amount of $33.0 million, or the 2020 Notes. We have the option to call up to an additional $33.0 million of 2020 Notes for a maximum aggregate amount of $66.0 million, subject to customary closing conditions, provided that any such call be for no less than $5.0 million on or prior to April 17, 2022. All unpaid interest and principal will be due and payable upon request of the majority of Lenders on or after the earlier of April 17, 2022 or an event of default. The 2020 Notes accrue interest at a rate equal to 2.0% above the Wall Street Journal Prime Rate. Upon the closing of this offering, the 2020 Notes, including accrued interest thereon, will automatically convert into a number of shares of common stock at a per share conversion price equal to the lesser of (i) 85% of the initial public offering price and (ii) $13.20 per share. See the section entitled "Management’s Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources; Plan of Operation—2020 Notes" and the notes to our consolidated financial statements included elsewhere in this prospectus. Assuming a closing date of this offering and conversion date of October 2, 2020 and an initial public offering price of $15.00 per share (which is the midpoint of the price range set forth on the cover page of this prospectus), the aggregate outstanding principal amount plus accrued interest under the 2020 Notes will automatically convert into 2,650,773 shares of our common stock immediately prior to the completion of this offering at a conversion price of $12.75 per share. Based on the conversions described above and the number of shares outstanding immediately after this offering described in the section of this prospectus entitled “Prospectus Summary—The Offering,” the shares of our common stock issued upon the conversion of the 2020 Notes will represent approximately 9% of the total number of shares of our common stock outstanding after the completion of this offering.

Impact of the COVID-19 Pandemic

Since it was reported to have surfaced in December 2019, a novel strain of coronavirus (COVID-19) has spread across the world and has been declared a pandemic by the World Health Organization. Efforts to contain the spread of COVID-19 have intensified and governments around the world, including in the United States, Europe and Asia, have implemented severe travel restrictions, social distancing requirements, quarantines, stay-at-home orders and other significant restrictions which have also resulted in delay of clinical trials and FDA operations. As a result, the current COVID-19 pandemic has presented a substantial public health and economic challenge around the world and is affecting our employees, including our sales force, hospitals, physicians, patients, communities and business operations, as well as contributing to significant volatility and negative pressure on the U.S. and world economy and in financial markets.

The COVID-19 pandemic has negatively impacted our business, financial condition and results of operations by decreasing and delaying substantially all procedures performed using our products, and we expect the pandemic to continue to negatively impact our business, financial condition and results of operations. Similar to the general trend in elective and other surgical procedures, the number of procedures performed using our products has decreased substantially as healthcare organizations across the globe have prioritized the treatment of patients with COVID-19 or have altered their operations to prepare for and respond to the pandemic. For example, in the United States, governmental authorities have recommended, and, in certain cases, required, that elective, specialty and other procedures and appointments be suspended or canceled to avoid non-essential patient exposure to medical environments and potential infection with COVID-19 and to focus limited resources and personnel capacity toward the treatment of COVID-19 patients.

In response to the COVID-19 pandemic, we have implemented a variety of measures intended to help us manage through its impact and position us to resume operations quickly and efficiently once these restrictions are lifted. These measures include:

- Establishing safety protocols, facility enhancements, and work-from-home strategies to protect our employees;
- Ensuring that our manufacturing and supply chain operations remain intact and operational, and building over four months of inventory;
- Keeping our workforce intact and continuing to build our team, including expansion of our U.S. sales force from 32 representatives at the end of December 2019 to 42 representatives at the end of June 2020;
- Continuing to focus on new account openings and implementing virtual physician and sales force training programs;
- Accelerating our physician education programs and direct-to-patient marketing efforts through social media or other virtual forums;
- Temporarily cutting over $2 million in discretionary spending in the second quarter of 2020;
- Increasing our capital base by $33.0 million through a convertible debt offering with existing and new investors in April 2020; and
- Continuing to invest in research and development activities in order to advance our AeriSeal clinical programs.

The COVID-19 pandemic has also negatively impacted the number of procedures using the Zephyr Valve as hospitals focus on COVID-19 and as patients postpone healthcare visits and treatments. Specifically, beginning in the second half of March, substantially all procedures using our products were postponed or cancelled as COVID-19 spread to the various regions across the globe where we conduct our business and sell our products. Unit volumes for our Zephyr Valves sold declined by approximately 55% for the three months ended June 30, 2020 compared to the three month period ended March 31, 2020, reaching a year to date monthly low in April. However, beginning in May, we began to see signs of a recovery in our business, and by September 11, 2020 the total number of Zephyr Valves sold in the third quarter of 2020 through that date was approximately the same as the total number of Zephyr Valves sold during the three months ended March 31, 2020.

Although no assurance can be given that this trend will continue, we are encouraged by the signs of recovery of our business in the third quarter of 2020, and we believe the following key indicators are contributing to the stabilization of our business:

- Continued opening of new accounts;
- Strong physician participation in virtual trainings;
- A strong patient pipeline evidenced by an increase in StratX report activity near to pre-COVID-19 levels, a rebound in patient calls into hospitals inquiring about our procedure, and a resumption of patient calls to our reimbursement support service; and
- Hospitals and centers beginning to accept patients for elective procedures.

Despite the encouraging signs of recovery of our business, we believe the measures and challenges resulting from COVID-19 will likely continue for the duration of the pandemic, which is uncertain, and will continue to significantly reduce our revenue and negatively impact our business, financial condition and results of operations while the pandemic continues. As a result, we cannot assure you that our recent increase in the Zephyr Valves sold are indicative of future results or that we will not experience additional negative impacts associated with COVID-19, which could be significant. In particular, we believe the reduction in the backlog of patients who have cancelled or postponed their procedures in the second quarter of 2020 is significantly contributing to the number of procedures and Zephyr Valves sold in the third quarter of 2020 as hospitals and centers are beginning to accept patients for elective procedures. However, the number of Zephyr Valves sold in the future may decrease as the backlog of patients who have cancelled or postponed their procedures due to the pandemic is reduced. The COVID-19 pandemic has negatively impacted our business, financial condition and results of operations by significantly decreasing and delaying the number of procedures performed using our products, and we expect the pandemic to continue to negatively impact our business, financial condition and results of operations. Further, once the pandemic subsides, there may be a substantial backlog of patients seeking appointments with physicians and surgeries to be performed at hospitals relating to a variety of medical conditions, and as a result, patients seeking treatment with Zephyr Valves may have to navigate limited provider capacity. We believe this limited provider and hospital capacity could have a significant adverse effect on our business, financial condition and results of operations following the end of the pandemic. The extent to which the COVID-19 pandemic impacts our business will depend on future developments, which are highly uncertain and cannot be predicted, including new information which may emerge concerning the severity and spread of COVID-19 and the actions to contain COVID-19 or treat its impact, among others.

Our consolidated financial statements reflect judgments and estimates that could change in the future as a result of the COVID-19 pandemic. See "Risk Factors—Risks Related to Our Business and Strategy—A pandemic, epidemic or outbreak of an infectious disease in the United States or worldwide, including the outbreak of the novel strain of coronavirus disease, COVID-19, could adversely affect our business."

Risk Factors

Our business is subject to numerous risks and uncertainties that you should be aware of before making an investment decision. You should carefully consider all of the information set forth in this prospectus and, in particular, should evaluate the specific factors set forth in the section entitled "Risk Factors" immediately following this prospectus summary in deciding whether to invest in our common stock. These risks include, among others, the following:

- We have a history of significant net losses, which we expect to continue, and we may not be able to achieve or sustain profitability in the future;
- We have limited experience marketing and selling our solution;
- We currently rely on a single product, the Zephyr Valve, which can only be marketed for limited indications, and if we are not successful in commercializing the Zephyr Valve, our business, financial condition and results of operations will be negatively affected;
- Our business is dependent on hospital, physician and patient adoption of our solution as a treatment for severe emphysema. If hospitals, physicians or patients are unwilling to change current practices to adopt our solution, it will negatively affect our business, financial condition and results of operations;
- If we fail to receive access to hospital facilities, our sales may decrease;
- A pandemic, epidemic or outbreak of an infectious disease in the United States or worldwide, including the outbreak of the novel strain of coronavirus disease, COVID-19, has adversely affected our business;
- Use of the Zephyr Valve involves risks and may result in complications, including pneumothorax or death, and is contraindicated in certain patients, which may limit adoption and negatively affect our business, financial condition and results of operations;

- If we are unable to achieve and maintain adequate levels of coverage or reimbursement for our solution, or any future products we may seek to commercialize, or if patients are left with significant out-of-pocket costs, our commercial success may be severely hindered;
- If we fail to retain marketing and sales personnel and, as we grow, fail to increase our marketing and sales capabilities or develop broad awareness of our solution in a cost-effective manner, we may not be able to generate revenue growth;
- We have limited long-term data regarding the safety and effectiveness of our solution, including the Zephyr Valve. The only safety and effectiveness data of our solution, including the Zephyr Valve, is limited to one year following placement and we are required to conduct extension studies to follow up on safety and effectiveness out to five years;
- We have limited experience manufacturing our products in significant commercial quantities and we face manufacturing risks that may adversely affect our ability to manufacture our products, reduce our gross margins and negatively affect our business, financial condition and results of operations;
- Our operating results may fluctuate significantly, which makes our future operating results difficult to predict and could cause our operating results to fall below expectations or any guidance we may provide;
- The sizes of the markets for our current and future products have not been established with precision and may be smaller than we estimate and may decline. Certain patients may not have regions of the lung with little to no collateral ventilation, making them poor candidates for the Zephyr Valve. In addition, if the overall rate of smokers continues to decline, this may eventually decrease the number of patients suffering from COPD and emphysema and, accordingly, who would benefit from our solution;
- We expect to continue to incur net losses for the next several years and we expect to require substantial additional capital beyond the proceeds of this offering to finance our planned operations, which may include future equity and debt financings. This additional capital may not be available to us on acceptable terms or at all. Our failure to obtain additional financing when needed on acceptable terms, or at all, could force us to delay, limit, reduce or eliminate our commercialization, sales and marketing efforts, product development programs or other operations;
- Our history of recurring losses and anticipated expenditures raise substantial doubts about our ability to continue as a going concern. Our ability to continue as a going concern requires that we obtain sufficient funding to finance our operations;
- Our products and operations are subject to extensive government regulation and oversight both in the United States and abroad. If we fail to obtain and maintain necessary regulatory approvals for the Zephyr Valve and related products, or if approvals for future products and indications are delayed or not issued, it will negatively affect our business, financial condition and results of operations; and
- We may become a party to intellectual property litigation or administrative proceedings that could be costly and could interfere with our ability to sell and market our products.

If we are unable to adequately address these and other risks we face, our business may be harmed.

Implications of Being an Emerging Growth Company and a Smaller Reporting Company

We qualify as an “emerging growth company” as defined in the Jumpstart Our Business Startups Act of 2012 (JOBS Act) and therefore we intend to take advantage of certain exemptions from various public company reporting requirements, including not being required to have our internal control over financial reporting audited by our independent registered public accounting firm pursuant to Section 404(b) of the Sarbanes-Oxley Act of 2002 (Sarbanes-Oxley Act), 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 any golden parachute payments not previously approved. We may take advantage of these exemptions for up to five years or until we are no longer qualify as an "emerging growth company," whichever is earlier. In addition, the JOBS Act provides that an "emerging growth company" can delay adopting new or revised accounting standards until those standards apply to private companies. We have not elected to use this extended transition period under the JOBS Act, and, therefore, we will be subject to the same accounting standards as other public companies that are not "emerging growth companies."

We are also a "smaller reporting company" as defined in the Securities Exchange Act of 1934, as amended (Exchange Act). We may continue to be a smaller reporting company even after we are no longer an "emerging growth company." We may take advantage of certain of reduced disclosures available to smaller reporting companies and will be able to take advantage of these reduced disclosures for so long as our voting and non-voting common stock held by non-affiliates is less than $250.0 million measured on the last business day of our second fiscal quarter, or our annual revenue is less than $100.0 million during the most recently completed fiscal year and our voting and non-voting common stock held by non-affiliates is less than $700.0 million measured on the last business day of our second fiscal quarter.

Corporate Information

We were initially incorporated under the laws of the State of California in December 1995 under the name Pulmonx. We reincorporated under the laws of the State of Delaware in December 2013 under the name Pulmonx Corporation.

Our principal executive offices are located at 700 Chesapeake Drive, Redwood City, California 94063. Our telephone number is 1-650-364-0400. Our website address is *www.pulmonx.com*. The information contained on, or that can be accessed through, our website is not incorporated by reference into this prospectus, and you should not consider any information contained on, or that can be accessed through, our website as part of this prospectus or in deciding whether to purchase our common stock.

"Pulmonx," the Pulmonx logo, and other trademarks or service marks of Pulmonx Corporation appearing in this prospectus are the property of Pulmonx Corporation. This prospectus contains additional trade names, trademarks, and service marks of others, which are the property of their respective owners. Solely for convenience, trademarks and trade names referred to in this prospectus may appear without the ® or TM symbols.

The Offering

Common stock offered by us	6,666,667 shares.
Common stock to be outstanding after this offering	30,718,953 shares (or 31,718,953 shares if the underwriters exercise their option to purchase additional shares in full).
Option to purchase additional shares	We have granted the underwriters a 30-day option to purchase up to 1,000,000 additional shares of our common stock at the public offering price less estimated underwriting discounts and commissions.
Use of proceeds	We estimate the net proceeds to us from issuance and sale of shares of our common stock in this offering will be approximately $88.0 million, or approximately $102.0 million if the underwriters exercise their option to purchase additional shares in full, based upon an assumed initial public offering price of $15.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. The principal purposes of this offering are to increase our financial flexibility, create a public market for our common stock and facilitate our future access to the capital markets. We currently intend to use the net proceeds from this offering to hire additional sales and marketing personnel and expand marketing programs in the United States, Europe and Asia Pacific to promote the sales of Zephyr Valves, to fund product development and research and development activities, in accordance with the terms of the Loan and Security Agreement (Oxford Agreement) with Oxford Finance LLC (Oxford) and based on the amount drawn thereunder, to pay a success fee of $1.9 million to Oxford on the closing of this offering and the remaining proceeds for working capital and general corporate purposes, including acquisitions or strategic investments in complementary businesses or technologies, although we do not currently have any plans for any such acquisitions or investments. These expectations are subject to change. See "Use of Proceeds" for additional information.
Risk factors	Investing in our common stock involves a high degree of risk. See "Risk Factors" beginning on page 15 and the other information included in this prospectus for a discussion of factors you should carefully consider before deciding to invest in our common stock.
Nasdaq Global Select Market symbol	"LUNG"

The number of shares of our common stock that will be outstanding after this offering set forth in the table above is based on (i) 22,615,294 shares of common stock outstanding as of June 30, 2020, which includes (x) 17,856,229 shares of common stock issuable upon the conversion of all of our outstanding shares of preferred stock outstanding as of June 30, 2020 (assuming a conversion ratio equal to approximately 1.0120 shares of common stock for each share of Series G-1 preferred stock based on an assumed initial public offering price of $15.00 per share, the midpoint of the price range set forth on the cover page of this prospectus) and (y) the issuance of 2,650,773 shares of common stock in connection with the closing of this offering as a result of the automatic conversion of the $33.0 million aggregate principal amount of the 2020 Notes plus accrued interest, based on the assumed initial public offering price of $15.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and an assumed closing date of this offering and conversion date of October 2, 2020, (ii) 1,436,992 shares of common stock issued upon the exercise of options after June 30, 2020 through September 23, 2020 and (iii) 6,666,667 shares of common stock offered by us in this offering.

Unless otherwise indicated, this prospectus excludes the following:

- 3,490,688 shares of our common stock issuable upon the exercise of options outstanding as of June 30, 2020, at a weighted-average exercise price of $1.69 per share, of which 1,436,992 shares of common stock were issued upon the exercise of options after June 30, 2020 through September 23, 2020;

- 834,871 shares of our common stock issuable upon the exercise of outstanding stock options granted after June 30, 2020 through September 23, 2020 under our 2020 Stock Plan, with a weighted-average exercise price of $2.19 per share;
- 10,725 shares of our common stock reserved for issuance under our 2020 Stock Plan, which shares will cease to be available for issuance at the time our 2020 Equity Incentive Plan becomes effective;
- 353,500 shares of our common stock issuable upon the exercise of options that we expect to grant under our 2020 Equity Incentive Plan, which will become effective prior to the closing of this offering, to each of our non-employee directors and other employees and service providers at an exercise price equal to the initial public offering price of this offering;
- 3,600,000 shares of our common stock reserved for future issuance pursuant to our 2020 Equity Incentive Plan, which will become effective prior to the closing of this offering, as well as any annual automatic evergreen increases in the number of shares of our common stock reserved for issuance under our 2020 Equity Incentive Plan; and
- 720,000 shares of our common stock reserved for future issuance under our 2020 Employee Stock Purchase Plan, which will become effective prior to the closing of this offering and will include provisions that automatically increase the number of shares of common stock reserved for issuance thereunder each year.

Unless otherwise indicated, this prospectus reflects and assumes the following:

- a 10-for-1 reverse stock split of our common stock effected on September 22, 2020;
- the automatic conversion of all outstanding shares of our preferred stock outstanding as of June 30, 2020, into an aggregate of 17,856,229 shares of our common stock immediately upon the closing of this offering (assuming a conversion ratio equal to approximately 1.0120 shares of common stock for each share of Series G-1 preferred stock based on an assumed initial public offering price of $15.00 per share, the midpoint of the price range set forth on the cover page of this prospectus);
- the filing and effectiveness of our amended and restated certificate of incorporation in Delaware and the adoption of our amended and restated bylaws, each of which will occur in connection with the closing of this offering;
- (i) the issuance of 2,650,773 shares of common stock in connection with the closing of this offering as a result of the automatic conversion of the $33.0 million aggregate principal amount of the 2020 Notes, plus accrued interest, based on the assumed initial public offering price of $15.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus (a $1.00 increase in the assumed initial public offering price of $15.00 per share would decrease the number of shares of our common stock issued to 2,560,407 shares upon such conversion; a $1.00 decrease in the assumed initial public offering price of $15.00 per share would increase the number of additional shares of our common stock issued to 2,840,116 shares upon such conversion), and an assumed closing date of this offering and conversion date of October 2, 2020; (ii) the reclassification of the derivative instrument upon the conversion of the 2020 Notes, the estimated $3.3 million credit to additional paid-in capital; and (iii) a charge of $6.4 million to the accumulated deficit with a corresponding credit to additional paid in capital due to the loss on extinguishment of 2020 Notes (assuming an initial public offering price of $15.00 per share, which is the midpoint of the range reflected on the cover of this prospectus);
- no exercise of outstanding options after June 30, 2020; and
- no exercise by the underwriters of their option to purchase additional shares of our common stock.

The number of shares of our common stock to be issued upon the conversion of all outstanding Series G-1 preferred stock depends in part on the initial public offering price of our common stock. The terms of our Series G-1 preferred stock provide that the ratio at which each share of such series converts into shares of our common stock in connection with this offering will increase if the initial public offering price is below $15.18 per share, which would result in additional shares of our common stock being issued upon conversion of our Series G-1 preferred stock immediately upon the closing of this offering. If the initial public offer price is equal to or greater than $15.18 per share, no additional shares of common stock will be issued upon conversion of our Series G-1 preferred stock immediately upon the closing of this offering. Based upon an assumed initial public offering price of $15.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, the 4,934,231 outstanding shares of our Series G-1 preferred stock will convert into an aggregate of 4,993,434 shares of our common stock immediately upon the closing of this offering. For illustrative purposes only, the table below shows the number of shares of our common stock that would be issuable upon conversion of the Series G-1 preferred stock at various initial public offering prices:

Assumed Initial Public Offering Price	Approximate Series G-1 Preferred Stock Conversion Ratio	Common Stock Issuable upon Conversion of Series G-1 Preferred Stock
$14.00	1.0843	5,350,108
$15.00	1.012	4,993,434
$16.00	1	4,934,231

Summary Consolidated Financial Data

The summary consolidated statements of operations data presented below for the years ended December 31, 2018 and 2019 are derived from our audited consolidated financial statements included elsewhere in this prospectus. We have derived the summary consolidated statements of operations data for the six months ended June 30, 2019 and 2020 and our summary consolidated balance sheet data as of June 30, 2020 from our unaudited interim condensed consolidated financial statements included elsewhere in this prospectus. The unaudited interim condensed consolidated financial statements have been prepared on the same basis as our audited consolidated financial statements and reflect, in the opinion of management, all adjustments, consisting only of normal, recurring adjustments that are necessary for a fair presentation of the unaudited interim consolidated information. Our historical results are not necessarily indicative of the results that may be expected in the future and our operating results for the six months ended June 30, 2020 are not necessarily indicative of the results that may be expected for the fiscal year ending December 31, 2020 or any other interim periods or any future year or period.

When you read this summary consolidated financial data, it is important that you read it together with the historical consolidated financial statements and related notes to those statements, as well as "Selected Consolidated Financial and Other Data" and "Management's Discussion and Analysis of Financial Condition and Results of Operations," included elsewhere in this prospectus.

	Years Ended December 31,		Six Months Ended June 30,	
	2018	2019	2019	2020
			(unaudited)	
	(in thousands, except share and per share amounts)			
Consolidated Statements of Operations Data:				
Revenue	$ 20,004	$ 32,595	$ 13,144	$ 12,291
Cost of goods sold	7,718	10,181	4,474	5,629
Gross profit	12,286	22,414	8,670	6,662
Operating expenses:				
Research and development	6,991	6,049	3,047	2,991
Selling, general and administrative	20,347	34,203	15,558	21,301
Total operating expenses	27,338	40,252	18,605	24,292
Loss from operations	(15,052)	(17,838)	(9,935)	(17,630)
Interest income	21	432	143	89
Interest expense	(2,520)	(2,317)	(1,407)	(1,811)
Other income (expense), net	(916)	(617)	(373)	421
Net loss before tax	(18,467)	(20,340)	(11,572)	(18,931)
Income tax expense	12	363	127	143
Net loss	$ (18,479)	$ (20,703)	$ (11,699)	$ (19,074)
Net loss per share attributable to common stockholders, basic and diluted(1)	$ (11.03)	$ (11.66)	$ (6.85)	$ (9.93)
Weighted-average shares used in computing net loss per share attributable to common stockholders, basic and diluted(1)	1,674,779	1,776,110	1,709,097	1,921,073
Pro forma net loss per share attributable to common stockholders, basic and diluted (unaudited)(1)		$ (1.14)		$ (0.91)
Weighted-average shares used in computing pro forma net loss per share, basic and diluted (unaudited)(1)		18,133,760		20,804,441

(1) For an explanation of the method used to calculate our historical and pro forma basic and diluted net loss per share and weighted average number of shares used in the computation of per share amounts, see Note 12 to our consolidated financial statements and Note 13 to our interim condensed consolidated financial statements included elsewhere in the prospectus.

	As of June 30, 2020		
	Actual	Pro forma(1)	Pro forma as Adjusted(2)(3)
		(unaudited) (in thousands)	
Consolidated Balance Sheet Data:			
Cash and cash equivalents	$ 43,347	$ 43,347	$ 129,472
Working capital(4)	46,918	47,269	134,449
Total assets	66,721	66,721	152,846
Convertible notes	29,310	—	—
Derivative liabilities	4,355	1,055	—
Term loan	16,723	16,723	16,723
Credit agreement	527	527	527
Total liabilities	64,887	31,926	30,871
Convertible preferred stock	207,599	—	—
Accumulated deficit	(229,577)	(236,377)	(237,197)
Total stockholders' (deficit) equity	(205,765)	34,795	121,975

(1) The pro forma consolidated balance sheet data gives effect to (i) the automatic conversion of all shares of our preferred stock outstanding as of June 30, 2020 into an aggregate of 17,856,229 shares of our common stock (assuming a conversion ratio equal to approximately 1.0120 shares of common stock for each share of Series G-1 preferred stock based on an assumed initial public offering price of $15.00 per share, the midpoint of the price range set forth on the cover page of this prospectus) which resulted in the reclassification of the carrying value of our preferred stock to common stock and additional paid-in capital; (ii) the assumed conversion of the $33.0 million aggregate outstanding principal amount and $0.8 million accrued interest of the 2020 Notes into 2,650,773 shares of our common stock at a conversion price of $12.75 per share, based on the assumed initial public offering price of $15.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and an assumed closing date of this offering and conversion date of October 2, 2020; (iii) the reclassification of the derivative instrument upon the conversion of the 2020 Notes and the estimated $3.3 million credit to additional paid-in capital; (iv) a charge of $6.4 million to the accumulated deficit with a corresponding credit to additional paid in capital due to the loss on extinguishment of 2020 Notes (assuming an initial public offering price of $15.00 per share, which is the midpoint of the range reflected on the cover of this prospectus); and (v) the filing of our amended and restated certificate of incorporation in connection with the closing of this offering.

(2) Reflects (i) the pro forma adjustments described in footnote (1); (ii) the issuance and sale of shares of common stock in this offering at an assumed initial public offering price of $15.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us; and (iii) the payment of a $1.9 million success fee to Oxford in accordance with the terms of the Oxford Agreement, reflected as a derivative liability (see Note 4 to our consolidated financial statements).

(3) Each $1.00 increase (decrease) in the assumed initial public offering price of $15.00 per share (the midpoint of the range set forth on the cover of this prospectus), would increase (decrease) the amount of each of cash and cash equivalents, working capital, total assets and total stockholders' (deficit) equity by $6.2 million, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. We may also increase (decrease) the number of shares we are offering. Each increase (decrease) of 1,000,000 in the number of shares we are offering would increase (decrease) the amount of each of cash and cash equivalents, working capital, total assets and total stockholders' equity by $14.0 million, assuming the assumed initial public offering price of $15.00 per share (the midpoint of the range set forth on the cover of this prospectus), remains the same and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. The pro forma as adjusted information is illustrative only and we will adjust this information based on the actual initial public offering price and other terms of this offering determined at pricing.

(4) We define working capital as current assets less current liabilities. See our interim condensed consolidated financial statements and the related notes included elsewhere in this prospectus for further details regarding our current assets and current liabilities as of June 30, 2020.

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described below, together with all of the other information contained in this prospectus, including our consolidated financial statements and the related notes appearing at the end of this prospectus and the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations," before deciding to invest in our common stock. Any of these events could cause the trading price of our common stock to decline, which would cause you to lose all or part of your investment. Our business, results of operations, financial condition, ability to accomplish our strategic objectives or prospects could also be harmed by risks and uncertainties not currently known to us or that we currently do not believe are material.

Summary Risk Factor

Investing in our common stock involves a high degree of risk because our business is subject to numerous risks and uncertainties, as described below. The principal factors and uncertainties that make investing in our common stock risky include, among others:

- We have a history of significant net losses, which we expect to continue, and we may not be able to achieve or sustain profitability in the future;
- We have limited experience marketing and selling our solution;
- We currently rely on a single product, the Zephyr Valve, which can only be marketed for limited indications, and if we are not successful in commercializing the Zephyr Valve, our business, financial condition and results of operations will be negatively affected;
- Our business is dependent on hospital, physician and patient adoption of our solution as a treatment for severe emphysema. If hospitals, physicians or patients are unwilling to change current practices to adopt our solution, it will negatively affect our business, financial condition and results of operations;
- If we fail to receive access to hospital facilities our sales may decrease;
- A pandemic, epidemic or outbreak of an infectious disease in the United States or worldwide, including the outbreak of the novel strain of coronavirus disease, COVID-19, has adversely affected our business;
- Use of the Zephyr Valve involves risks and may result in complications, including pneumothorax or death, and is contraindicated in certain patients, which may limit adoption and negatively affect our business, financial condition and results of operations;
- If we are unable to achieve and maintain adequate levels of coverage or reimbursement for our solution, or any future products we may seek to commercialize, or if patients are left with significant out-of-pocket costs, our commercial success may be severely hindered;
- If we fail to retain marketing and sales personnel and, as we grow, fail to increase our marketing and sales capabilities or develop broad awareness of our solution in a cost-effective manner, we may not be able to generate revenue growth;
- We have limited long-term data regarding the safety and effectiveness of our solution, including the Zephyr Valve. The only safety and effectiveness data of our solution, including the Zephyr Valve, is limited to one year following placement and we are required to conduct extension studies to follow up on safety and effectiveness out to five years;
- We have limited experience manufacturing our products in significant commercial quantities and we face manufacturing risks that may adversely affect our ability to manufacture our products, reduce our gross margins and negatively affect our business, financial condition and results of operations;
- Our operating results may fluctuate significantly, which makes our future operating results difficult to predict and could cause our operating results to fall below expectations or any guidance we may provide;
- The sizes of the markets for our current and future products have not been established with precision and may be smaller than we estimate and may decline. Certain patients may not have regions of the lung with little to no collateral ventilation, making them poor candidates for the Zephyr Valve. In addition, if the overall rate of smokers continues to decline, this may eventually decrease the number of patients suffering from COPD and emphysema and, accordingly, who would benefit from our solution;
- We expect to continue to incur net losses for the next several years and we expect to require substantial additional capital beyond the proceeds of this offering to finance our planned operations, which may

include future equity and debt financings. This additional capital may not be available to us on acceptable terms or at all. Our failure to obtain additional financing when needed on acceptable terms, or at all, could force us to delay, limit, reduce or eliminate our commercialization, sales and marketing efforts, product development programs or other operations;

- Our history of recurring losses and anticipated expenditures raise substantial doubts about our ability to continue as a going concern. Our ability to continue as a going concern requires that we obtain sufficient funding to finance our operations;
- Our products and operations are subject to extensive government regulation and oversight both in the United States and abroad. If we fail to obtain and maintain necessary regulatory approvals for the Zephyr Valve and related products, or if approvals for future products and indications are delayed or not issued, it will negatively affect our business, financial condition and results of operations; and
- We may become a party to intellectual property litigation or administrative proceedings that could be costly and could interfere with our ability to sell and market our products.

Risks Related to Our Business and Strategy

We have a history of significant net losses, which we expect to continue, and we may not be able to achieve or sustain profitability in the future.

We have incurred net losses since our inception. For the year ended December 31, 2019 and the six months ended June 30, 2020, we had net losses of $20.7 million and $19.1 million, respectively, and we expect to continue to incur additional losses. As of December 31, 2019 and the six months ended June 30, 2020, we had an accumulated deficit of $210.5 million and $229.6 million, respectively. We expect to continue to incur significant sales and marketing, research and development, regulatory and other expenses as we grow our sales force and expand our marketing efforts to increase adoption of our products, expand existing relationships with our customers, obtain regulatory clearances or approvals for our planned or future products, conduct clinical trials on our existing and planned or future products and develop new products or add new features to our existing products. In addition, we expect our general and administrative expenses to increase following this offering due to the additional costs associated with being a public company. The net losses that we incur may fluctuate significantly from period to period. We will need to generate significant additional revenue in order to achieve and sustain profitability. Even if we achieve profitability, we cannot be sure that we will remain profitable for any substantial period of time.

We have limited experience marketing and selling our solution.

We began commercializing our solution and the Zephyr Valve in the United States in 2018 and, through our predecessors, in Europe in 2003. Our limited commercialization experience and limited number of approved or cleared products make it difficult to evaluate our current business and predict our future prospects. These factors also make it difficult for us to forecast our future financial performance and growth, and such forecasts are subject to a number of uncertainties, including our ability to successfully complete clinical trials and obtain pre-market approval or 510(k) clearance by the FDA for future planned products in the United States or in key international markets. Our commercialization efforts will depend on the efforts of our management and sales team, our third-party suppliers, physicians and hospitals, and general economic conditions, among other factors, including the following:

- the effectiveness of our marketing and sales efforts in the United States and internationally;
- our success in educating physicians and patients about the benefits, administration and use of the Zephyr Valves;
- the acceptance by physicians, patients and payors of the safety and effectiveness of the Zephyr Valves, including the long-term data;
- our third-party suppliers' ability to supply the components of the Zephyr Valves in a timely manner, in accordance with our specifications and in compliance with applicable regulatory requirements, and to remain in good standing with regulatory agencies;

- the impact of the COVID-19 pandemic on our business;
- the availability, perceived advantages, relative cost, relative safety and relative efficacy of alternative and competing therapies;
- our ability to obtain, maintain and enforce our intellectual property rights in and to the Zephyr Valves;
- the emergence of competing technologies and other adverse market developments, and our need to enhance the Zephyr Valves or develop new products to maintain market share in response to such competing technologies or market developments;
- our ability to raise additional capital on acceptable terms, or at all, if needed to support the commercialization of the Zephyr Valves; and
- our ability to achieve and maintain compliance with all regulatory requirements applicable to the Zephyr Valves.

If our assumptions regarding the risks and uncertainties we face, which we use to plan our business, are incorrect or change due to circumstances in our business or our markets, or if we do not address these risks successfully, it will negatively affect our business, financial condition and results of operations.

We currently rely on a single product, the Zephyr Valve, which can only be marketed for limited indications, and if we are not successful in commercializing the Zephyr Valve, our business, financial condition and results of operations will be negatively affected.

Our business currently depends entirely on our ability to successfully commercialize the Zephyr Valve, as well as our overall solution, in a timely manner. We have no other therapeutic products currently approved for sale in the United States and we may never be able to develop additional marketable products or enhancements to the Zephyr Valve solution. Currently, our solution is only available to treat patients with severe emphysema in the United States and additional limited indications internationally where we have obtained the necessary regulatory approvals or clearances. Therefore, we are dependent on widespread market adoption of our solution for this limited use-case and we will continue to be dependent on this use-case for the foreseeable future. There can be no assurance that our solution will gain a substantial degree of market acceptance among specialty physicians, patients or healthcare providers. Our failure to successfully increase sales of our solution or develop solutions that address forms of COPD beyond severe emphysema and obtain any necessary regulatory approvals or clearances in connection therewith could negatively affect our business, financial condition and results of operations.

Our success depends in large part on the success of the Zephyr Valve. If we are unable to successfully market and sell the Zephyr Valves, as well as our overall solution, to patients with severe emphysema, it will negatively affect our business, financial condition and results of operations.

Our success will depend on our ability to bring awareness to our solution, and the Zephyr Valve in particular, and educate hospitals and physicians regarding the benefits of our solution over existing products and services and to encourage those parties to recommend our solution to their patients. Sales of Zephyr Valves and delivery catheters accounted for most of our revenue for the year ended December 31, 2019 and six months ended June 30, 2020 and we expect that sales of Zephyr Valves and delivery catheters will continue to account for most of our revenue going forward. We do not know if our solution will be successful over the long term. Moreover, market acceptance may be hindered if physicians are not presented with compelling data demonstrating the efficacy of our solution compared to alternative procedures and technologies. Any studies we, or third parties which we sponsor, may conduct comparing our solution with alternative treatments for severe emphysema will be expensive, time consuming and may not yield positive results. Additionally, adoption will be directly influenced by a number of financial factors, including the ability of providers to obtain sufficient reimbursement from payors for deploying our solution. The safety, efficacy, performance and cost-effectiveness of our solution, on a stand-alone basis and relative to competing treatments and services, will determine the willingness of payors to cover the procedure. While we have established positive coverage policies with major national private payors, such as Aetna and Humana, other commercial payors, such as the Blue Cross Blue Shield family of plans, do not currently consider our solution medically necessary. No matter the level of coverage by the commercial payor, each patient is generally considered on a case-by-case basis. In addition, Medicare, currently without a public coverage policy, covers our solution for patients when medically necessary on a case-by-case basis. Physicians may be reluctant to recommend our solution to patients covered by such plans with no specific policies because of the uncertainty surrounding reimbursement, rates and the administrative burden of interfacing with patients to answer their questions and support their efforts to obtain adequate reimbursement for our solution. If physicians do not adopt and recommend our solution, it will negatively affect our business, financial condition and results of operations.

Our business is dependent on hospital, physician and patient adoption of our solution as a treatment for severe emphysema. If hospitals, physicians or patients are unwilling to change current practices to adopt our solution, it will negatively affect our business, financial condition and results of operations.

Our primary strategy to grow our revenue is to take a stepwise approach to market development across key stakeholders in severe emphysema treatment, such as hospitals, physicians and patients. To succeed, our sales force must build deep relationships with pulmonary physicians to encourage them and their hospitals to develop emphysema centers of excellence, where physicians are instructed in the workup of advanced COPD and performance of bronchoscopic lung volume reduction using our solution, that offer our solution as a treatment for severe emphysema. In addition, we utilize direct-to-patient marketing initiatives to increase demand through patient empowerment. While the number of hospitals incorporating our solution has increased in recent years, there is a significant group of hospitals and physicians who have not yet adopted our solution, and additional hospitals and physicians may choose not to adopt our solution for a number of reasons, including:

- inadequate recruiting or training of talented sales force in existing and new markets to facilitate outreach and further adoption and awareness of Zephyr Valve;
- lack of experience with our solution and the Zephyr Valve as a treatment alternative;
- the failure of key opinion leaders to continue to provide recommendations regarding the Zephyr Valve, or to assure physicians, patients and healthcare payors of the benefits of the Zephyr Valve as an attractive alternative to other treatment options;
- perceived inadequacy of evidence supporting clinical benefits or cost-effectiveness of our solution over existing alternatives;
- a perception among some physicians of patients' inability to tolerate the procedure required to implant our solution;
- liability risks generally associated with the use of new products and procedures;
- the training required to use new products;
- lack of availability of adequate third-party payor coverage or reimbursement;
- access to hospital bidding processes;
- a decrease or delay in the number of procedures performed using our solution as a result of the COVID-19 pandemic;
- competing products and alternatives; and
- introduction of other novel alternative therapies to treat severe emphysema.

We focus our sales, marketing and training efforts primarily on pulmonologists. However, physicians from other disciplines, including primary care physicians, as well as other medical professionals, such as nurse practitioners, respiratory technicians, radiologists and community physicians, are often the initial point of contact for patients with severe emphysema.

These physicians and other medical professionals commonly screen and treat patients with severe emphysema, and are likely to recommend medical management, inhaled medications, pulmonary rehabilitation and supplemental oxygen, or more invasive LVRS or lung transplantations. We believe that educating physicians in these disciplines and other medical professionals about the clinical merits and patient benefits of our solution as a minimally invasive treatment for severe emphysema is a key element of increasing the adoption of our solution. If additional physicians or other medical professionals do not adopt, or existing physician customers cease referring patients to, our solution for any reason, including those listed above, our ability to execute our growth strategy will be impaired, and it will negatively affect our business, financial condition and results of operations.

In addition, patients will not qualify for our solution if, among other potential reasons, their lung anatomy has collateral ventilation that does not allow for effective treatment with the Zephyr Valve. Patients may not adopt our solution if they are reluctant to undergo a minimally invasive procedure, if they are worried about potential adverse effects of our solution, such as infection, discomfort or weakness, or if they are unable to obtain adequate third-party coverage or reimbursement.

If we fail to receive access to hospital facilities, our sales may decrease.

In the United States, in order for physicians to use the Zephyr Valve, we expect that the hospital facilities where these physicians treat patients will typically require us to enter into purchasing contracts setting forth the terms and conditions under which the hospital facilities will purchase Zephyr Valves. This process can be lengthy and time-consuming and require extensive negotiations and management time, and potentially result in delays and increases to the sales cycle before we can sell the Zephyr Valve to these hospitals. In the European Union, certain institutions may require us to engage in a contract bidding process in the event that such institutions are considering making purchase commitments that exceed specified cost thresholds, which vary by jurisdiction. These processes are only open at certain periods of time, and we may not be successful in the bidding process. If we do not receive access to hospital facilities via these contracting processes or otherwise, or if we are unable to secure contracts or tender successful bids, our sales may decrease, and our operating results may be harmed. Furthermore, we may expend significant effort in these time-consuming processes and still may not obtain a purchase contract from such hospitals.

A pandemic, epidemic or outbreak of an infectious disease in the United States or worldwide, including the outbreak of the novel strain of coronavirus disease, COVID-19, has adversely affected our business.

If a pandemic, epidemic or outbreak of an infectious disease occurs in the United States or worldwide, our business may be adversely affected. In December 2019, a novel strain of coronavirus, SARS-CoV-2, was identified in Wuhan, China. Since then, SARS-CoV-2, and the resulting disease, COVID-19, has spread to most countries and all 50 states within the United States. The COVID-19 pandemic has negatively impacted our business, financial condition and results of operations by decreasing and delaying substantially all procedures performed using our products, and we expect the pandemic to continue to negatively impact our business, financial condition and results of operations. Similar to the general trend in elective and other surgical procedures, the number of procedures performed using our products has decreased substantially as healthcare organizations across the globe have prioritized the treatment of patients with COVID-19 or have altered their operations to prepare for and respond to the pandemic. For example, in the United States, governmental authorities have recommended, and in certain cases required, that elective, specialty and other procedures and appointments be suspended or canceled to avoid non-essential patient exposure to medical environments and potential infection with COVID-19 and to focus limited resources and personnel capacity toward the treatment of COVID-19 patients. We believe the COVID-19 pandemic has also negatively impacted the number of procedures using the Zephyr Valve as hospitals focus on COVID-19 and as patients postpone healthcare visits and treatments. Specifically, beginning in the second half of March, substantially all procedures using our products were postponed or cancelled as COVID-19 spread to the various regions across the globe where we conduct our business and sell our products. Unit volumes for our Zephyr Valves sold declined by approximately 55% for the three months ended June 30, 2020 compared to the three month period ended March 31, 2020, reaching a year to date monthly low in April. While we began to see signs of a recovery in our business beginning in May, and, by September 11, 2020, the total number of Zephyr Valves sold in the third quarter of 2020 through that date was approximately the same as the total number of Zephyr Valves sold during the three months ended March 31, 2020, no assurance can be given that this trend will continue. Further, our third fiscal quarter ends on September 30, 2020, and, accordingly, the information regarding unit volume of our Zephyr Valves sold in that quarter reflects our preliminary estimates for the third quarter through September 11, 2020. These preliminary estimates have not been reviewed by our independent registered public accounting firm and may vary from our final results, including due to sales of our Zephyr Valves for the remainder of the quarter, the completion of our financial closing procedures, final adjustments and other developments that may arise. Despite the encouraging signs of recovery of our business, we believe these measures and challenges will likely continue for the duration of the pandemic, which is uncertain, and will continue to significantly reduce our revenue and negatively impact our business, financial condition and results of operations while the pandemic continues. As a result, we cannot assure you that our recent increase in the Zephyr Valves sold are indicative of future results or that we will not experience additional negative impacts associated with COVID-19, which could be significant. In particular, we believe the reduction in the backlog of patients who have cancelled or postponed their procedures in the second quarter of 2020 is significantly contributing to the number of procedures and Zephyr Valves sold in the third quarter of 2020 as hospitals and centers are beginning to accept patients for elective procedures. However, the number of Zephyr Valves sold in the future may decrease as the backlog of patients who have cancelled or postponed their procedures due to the pandemic is reduced. The COVID-19 pandemic has negatively impacted our business, financial condition and results of operations by significantly decreasing and delaying the number of procedures performed using our products, and we expect the pandemic to continue to negatively impact our business, financial condition and results of operations. Further, once the pandemic subsides, there may be a substantial backlog of patients seeking appointments with physicians and surgeries to be performed at hospitals relating to a variety of medical conditions, and as a result, patients seeking treatment with Zephyr Valves may have to navigate limited provider capacity. We believe this limited provider and hospital capacity could have a significant adverse effect on our business, financial condition and results of operations following the end of the pandemic.

Numerous state and local jurisdictions have imposed, and others in the future may impose, “shelter-in-place” orders, quarantines, executive orders and similar government orders and restrictions for their residents to control the spread of COVID-19. On March 19, 2020, the governor of California, where our headquarters are located, issued “stay at home” orders limiting non-essential activities, travel and business operations. Such orders or restrictions have resulted in reduced operations at our headquarters (including our manufacturing facility), work stoppages, slowdowns and delays, travel restrictions and cancellation of events and have restricted the efforts of our sales representatives, thereby significantly and negatively impacting our operations. Other disruptions or potential disruptions include restrictions on the ability of our sales representatives and other personnel to travel and access customers for training and case support; inability of our suppliers to manufacture components and parts and to deliver these to us on a timely basis, or at all; disruptions in our production schedule and ability to manufacture and assemble products; inventory shortages or obsolescence; delays in actions of regulatory bodies; delays in clinical trials and studies; diversion of or limitations on employee resources that would otherwise be focused on the operations of our business, including because of sickness of employees or their families or the desire of employees to avoid contact with groups of people; delays in growing or reductions in our sales organization, including through delays in hiring, lay-offs, furloughs or other losses of sales representatives; restrictions in our ability to ship our products to customers; business adjustments or disruptions of certain third parties, including suppliers, medical institutions and clinical investigators with whom we conduct business; negative impact on our customers’ credit profiles, which may adversely impact our future collection experience; and additional government requirements or other incremental mitigation efforts that may further impact our or our suppliers’ capacity to manufacture our products. The extent to which the COVID-19 pandemic impacts our business will depend on future developments, which are highly uncertain and cannot be predicted, including new information which may emerge concerning the severity and spread of COVID-19 and the actions to contain COVID-19 or treat its impact, among others.

While the potential economic impact brought by and the duration of any pandemic, epidemic or outbreak of an infectious disease, including COVID-19, may be difficult to assess or predict, the widespread COVID-19 pandemic has resulted in, and may continue to result in, significant disruption of global financial markets, reducing our ability to access capital, which could in the future negatively affect our liquidity. In addition, the recession and market correction resulting from the spread of an infectious disease, including COVID-19, has materially affected our business. Such economic recession could have a material adverse effect on our long-term business as hospitals curtail and reduce capital and overall spending. In addition, the current economic downturn is resulting in significant job losses and reductions in disposable income and if patients are unable to obtain or maintain health insurance policies, this may significantly impact their ability to pay for the procedures utilizing our products, further negatively impacting our business, financial condition and results of operations. To the extent the COVID-19 pandemic adversely affects our business and financial results, it may also have the effect of heightening many of the other risks described in this “Risk Factors” section.

Use of our solution requires appropriate physician training, and inadequate training may lead to negative patient outcomes and negatively affect our business, financial condition and results of operations.

The successful implantation of the Zephyr Valve depends in part on the training and skill of the physician performing the procedure and on adherence to appropriate patient selection and proper techniques provided in training sessions conducted by our training faculty. For example, we train physicians to ensure correct patient selection and treatment planning using the StratX Platform and Chartis System, and proper placement of the Zephyr Valve. Physicians could experience difficulty with the technique necessary to successfully implant the valve and may not achieve the technical competency necessary to complete the training program, or they could fail to properly learn how to interpret our StratX Platform or Chartis System. Moreover, physicians rely on their previous medical training and experience when using our solution, and we cannot guarantee that all such physicians will have the necessary skills to properly identify ideal candidates and to perform the procedure. We do not control which physicians use our solution or how much training they receive, and physicians who have not completed our training sessions may nonetheless attempt to use our solution. If physicians implant the Zephyr Valve incorrectly, or do so in a manner that is inconsistent with its labeled indications, with components that are not our products, in patients who are not good candidates, or without adhering to or completing our training sessions, their patient outcomes may not be consistent with the outcomes achieved in our clinical trials. This result may negatively impact the perception of patient benefit and safety, and limit adoption of our solution as a treatment for severe emphysema and our products that facilitate the procedure, which will negatively affect our business, financial condition and results of operations.

In addition, we may experience difficulty growing the number of physicians who complete our training program if patient demand is low, if the length of time necessary to train each physician is longer than expected, if the capacity of our commercial organization to train physicians is less than expected or if we are unable to sufficiently grow our sales force. All these events would lead to fewer trained physicians qualified to implant the Zephyr Valve, which could negatively affect our business, financial condition and results of operations.

Use of the Zephyr Valve involves risks and may result in complications, including pneumothorax or death, and is contraindicated in certain patients, which may limit adoption and negatively affect our business, financial condition and results of operations.

The most common serious complications relating to the use of the Zephyr Valve include pneumothoraces, worsening of COPD symptoms, hemoptysis, pneumonia, dyspnea, respiratory failure and, in rare cases, death. Pneumothoraces occur when a lung collapses due to an air leak inside the lung and may result from rapid shifts in air volume in the chest as the target lobe deflates and the neighboring lobe expands following the Zephyr Valve treatment. A pneumothorax typically requires placement of a chest tube to manage the air leak. While most pneumothoraces can be readily managed with standard medical care, in rare cases they can be life-threatening, particularly if left untreated. In the event the pneumothorax does not resolve with standard management, one or more valves can be removed to re-inflate the lung; these are typically replaced later when the pneumothorax has resolved.

In our clinical trials, pneumothoraces occurred in 18-34% of patients treated with the Zephyr Valve, and in the LIBERATE study, 17% of the pneumothorax events required no intervention and resolved on their own. Patients who have had their pneumothoraces successfully treated had comparable outcomes to those who did not experience a pneumothorax, other than that their hospital stays were extended by approximately a week compared to the three nights for patients without pneumothoraces.

In the LIBERATE study, the majority of pneumothoraces (76%) occurred within three days following a bronchoscopy procedure. During the Treatment Period (day of procedure to 45 days), there were a total of four deaths (3.1%) in the Zephyr Valve Group (which received Zephyr Valves plus medical management) and none in the Control Group (which received medical management alone). Three of the four deaths were deemed by the investigators to be definitely related to treatment with Zephyr Valves and the remaining one was deemed by the investigators to be probably related to treatment with Zephyr Valves. Each patient that died experienced pneumothorax, with three deaths directly attributed to the pneumothorax and the fourth death the result of respiratory failure, after the pneumothorax had resolved. Two of the pneumothorax-related deaths occurred early in the study when patients were being kept in the hospital for one night after the procedure. In order to more closely monitor patients, the study protocol was subsequently amended to keep patients in the hospital for five nights. Based on the full study data, current practice is to keep patients in the hospital for a minimum of three nights post-treatment. Post-hoc analysis has helped to identify risk factors for the group of patients at a higher risk of having a complex pneumothorax event (complex pneumothorax defined as requiring removal of all valves or resulting in death) should one occur. Such high-risk patients include those who are not treated in the most diseased lobe and have greater than 60% destruction of the untreated lung. All four patients who experienced a pneumothorax and died were within this high-risk group. This learning is incorporated in our physician training program for physicians to identify such high-risk patients and to consider alternative targets or other risk mitigation strategies. During the Longer-Term Period (46 days after procedure to 12 months), there was one death (0.8%) in the Zephyr Valve Group from a COPD exacerbation, deemed by the investigators not to be related to treatment with Zephyr Valves, and one cardiac arrhythmia related death in the Control Group (1.6%).

Outside of clinical trials, patients treated with the Zephyr Valve have also experienced serious complications, including pneumothoraces and death related to the Zephyr Valve.

Serious complications as a result of treatment with Zephyr Valves, and any increase in the rate of complications in or outside of clinical trials, could cause doctors, hospitals and patients to limit adoption of our solution and subject us to costly litigation, require us to pay substantial amounts of money to patients, delay, negatively impact or end our opportunity to receive or maintain regulatory approval to market our products, or require us to suspend or abandon our commercialization efforts, which may negatively impact adoption as well as our business, financial condition and results of operations. Even in a circumstance in which we do not believe that a complication is related to the Zephyr Valve or treatment with the Zephyr Valve, the investigation into the circumstance may be time-consuming or inconclusive and may interrupt our sales efforts or impact and limit the type of regulatory approvals the Zephyr Valve receives or maintains and any related claims may negatively impact adoption as well as our business, financial condition and results of operations. Moreover, perceptions regarding the safety of the Zephyr Valve could be affected even if such complications are unrelated to the Zephyr Valve or treatment with the Zephyr Valve.

Further, our current products are contraindicated, and therefore should not be used, in certain patients, including those for whom bronchoscopic procedures are contraindicated, with evidence of active pulmonary infection, with known allergies to Nitinol (nickel-titanium) or its constituent metals (nickel or titanium) or silicone, who have not quit smoking, or with large bullae encompassing greater than 30% of either lung, and such contraindication may limit adoption and, as a result, negatively impact our business, financial condition and results of operations.

If we are unable to achieve and maintain adequate levels of coverage or reimbursement for our solution, or any future products we may seek to commercialize, or if patients are left with significant out-of-pocket costs, our commercial success may be severely hindered.

We currently derive substantially all of our revenue from the sale of our products to hospitals and distributors and expect this to continue for the foreseeable future. We primarily sell Zephyr Valves through a direct sales force that primarily engages with pulmonologists in the United States, Europe and Asia Pacific. Hospitals typically bill various third-party payors to cover all or a portion of the costs and fees associated with the procedures in which our solution is used and bill patients for any deductibles or co-payments. As of June 30, 2020, commercial payors such as Aetna, Humana, Priority Health and Emblem Health have issued positive coverage policies for endobronchial valve procedures. United Healthcare removed the endobronchial valve codes from their non-covered list, and as such no longer considers the procedure unproven or experimental. Other commercial payors, such as many plans in the Blue Cross Blue Shield family of plans, do not yet consider our solution medically necessary. Medicare, currently without a public coverage policy, covers our solution for patients when medically necessary on a case-by-case basis, and other commercial insurers not described above are approving pre-authorization requests on a case-by-case basis.

The Centers for Medicare & Medicaid Services (CMS) have established guidelines for the coverage and reimbursement of certain products and procedures by Medicare. In general, in order to be reimbursed by Medicare, a healthcare procedure furnished to a Medicare beneficiary must be reasonable and necessary for the diagnosis or treatment of an illness or injury, or to improve the functioning of a malformed body part. The methodology for determining coverage status and the amount of Medicare reimbursement varies based upon, among other factors, the setting in which a Medicare beneficiary received healthcare products and services. Any changes in federal legislation, regulations and policy affecting CMS coverage and reimbursement relative to the procedure using our products could have a material effect on our performance. While no national coverage determination (NCD) or local coverage determination (LCD) exists for endobronchial valves currently, CMS could develop an NCD, or one or more Medicare contractors could develop an LCD that either restricts coverage or restricts the patient population deemed appropriate for the treatment.

Physicians that insert the Zephyr Valve, or the hospitals for which they work, may be subject to reimbursement claim denials upon submission of the claim. Physicians or hospitals may also be subject to recovery of overpayments if a payor makes payment for the claim and subsequently determines that the payor's coding, billing or coverage policies were not followed. Whenever possible, pre-authorization for coverage for the procedure is recommended before the procedure is performed. When pre-authorization is not obtained or not allowed, and the procedure is performed and not covered by third-party payors, physicians or hospitals typically directly bill patients enrolled with these third-party payors for the costs and fees associated with the procedures in which our products are used. Moreover, because there is often no separate reimbursement for supplies used in surgical procedures, the additional cost associated with the use of our solution can affect the profit margin of the hospital or surgery center where the procedure is performed. Some of our target physicians and hospitals may be unwilling to adopt our products in light of the additional associated cost. Further, any decline in the amount payors are willing to reimburse physicians and hospitals could make it difficult for existing physicians and hospitals to continue using or to adopt our solution and could create additional pricing pressure for us. If we are forced to lower the price we charge for our solution, our gross margins will decrease, which will negatively affect our business, financial condition and results of operations.

Outside of the United States, reimbursement levels vary significantly by country and by patient. Reimbursement is obtained from a variety of sources, including government sponsors, hospital budgets, or private health insurance plans, or combinations thereof. We have established reimbursement access in countries across Europe and Asia Pacific, including Australia, Belgium, France, Germany, the Netherlands, South Korea, the United Kingdom and other countries. Even if we succeed in bringing our products to market in additional foreign countries, uncertainties regarding future healthcare policy, legislation and regulation, as well as private market practices, could affect our ability to sell our products in commercially acceptable quantities at acceptable prices.

Third-party payors, whether foreign or domestic, or governmental or commercial, are developing increasingly sophisticated methods of controlling healthcare costs. In addition, no uniform policy of coverage and reimbursement for procedures using our solution exists among third-party payors. Therefore, coverage and reimbursement for procedures using our products can differ significantly from payor to payor. Payors continually review new and existing technologies for possible coverage and can, without notice, deny or reverse coverage for new or existing products and procedures. There can be no assurance that third-party payor policies will provide coverage for procedures in which our products are used. If we are not successful in reversing existing non-coverage policies, if third-party payors that currently cover or reimburse our products and related procedures reverse or limit their coverage in the future or if other third-party payors issue similar policies, this will negatively affect our business, financial condition and results of operations.

Further, we believe that future coverage and reimbursement may be subject to increased restrictions, such as additional prior authorization requirements, both in the United States and in international markets. Third-party coverage and reimbursement for procedures using our solution or any of our products in development for which we may receive regulatory approval may not be available or adequate in either the United States or international markets, which will negatively affect our business, financial condition and results of operations.

Third-party payors and physicians who do not cover or use the Zephyr Valve may require additional clinical data prior to maintaining coverage of or adopting the Zephyr Valve.

Our success depends on physician and third-party payor acceptance of our solution as an effective treatment option for patients with severe emphysema. If physicians or payors do not find our body of published clinical evidence and data compelling or wish to wait for additional studies, they may choose not to use or provide coverage and reimbursement for our solution.

In addition, the long-term effects of use of the Zephyr Valve to treat severe emphysema are not yet known. Certain physicians, hospitals and payors may prefer to see longer-term safety and efficacy data published than we have produced. Further, we cannot provide assurance that any data that we or others may generate in the future will be consistent with that observed in our existing clinical studies.

If we fail to retain marketing and sales personnel and, as we grow, fail to increase our marketing and sales capabilities or develop broad awareness of our solution in a cost-effective manner, we may not be able to generate revenue growth.

We have limited experience marketing and selling our solution. We currently rely on our direct sales force to sell our solution in targeted geographic regions and distributors in certain regions outside the United States, and any failure to maintain and grow our direct sales force will negatively affect our business, financial condition and results of operations. The members of our direct sales force are highly trained and possess substantial technical expertise, which we believe is critical in increasing adoption of our solution. The members of our U.S. sales force are at-will employees. The loss of these personnel to competitors, or otherwise, will negatively affect our business, financial condition and results of operations. If we are unable to retain our direct sales force personnel or replace them with individuals of equivalent technical expertise and qualifications, or if we are unable to successfully instill such technical expertise in replacement personnel, it may negatively affect our business, financial condition and results of operations.

In order to generate future growth, we plan to continue to expand and leverage our sales and marketing infrastructure to increase the number of customers and emphysema centers of excellence. Identifying and recruiting qualified sales and marketing personnel and training them on our solution, on applicable federal and state laws and regulations and on our internal policies and procedures requires significant time, expense and attention. It often takes several months or more before a sales representative is fully trained and productive. Our sales force may subject us to higher fixed costs than those of companies with competing techniques or products that utilize independent third parties, which could place us at a competitive disadvantage. It will negatively affect our business, financial condition and results of operations if our efforts to expand and train our sales force do not generate a corresponding increase in revenue, and our higher fixed costs may slow our ability to reduce costs in the face of a sudden decline in demand for our solution. Any failure to hire, develop and retain talented sales personnel, to achieve desired productivity levels in a reasonable period of time or timely reduce fixed costs, could negatively affect our business, financial condition and results of operations. Our ability to increase our customer base and achieve broader market acceptance of our solution will depend to a significant extent on our ability to expand our marketing efforts. We plan to dedicate significant resources to our marketing programs. It will negatively affect our business, financial condition and results of operations if our marketing efforts and expenditures do not generate a corresponding increase in revenue. In addition, we believe that developing and maintaining broad awareness of our solution in a cost-effective manner is critical to achieving broad acceptance of our solution and expanding domestically and internationally. Promotion activities may not generate patient or physician awareness or increase revenue, and even if they do, any increase in revenue may not offset the costs and expenses we incur in building our brand. If we fail to successfully promote, maintain and protect our brand, we may fail to attract or retain the physician acceptance necessary to realize a sufficient return on our brand building efforts, or to achieve the level of brand awareness that is critical for broad adoption of our solution.

We have limited long-term data regarding the safety and effectiveness of our solution, including the Zephyr Valve. The only safety and effectiveness data of our solution, including the Zephyr Valve, is limited to one year following placement and we are required to conduct extension studies to follow up on safety and effectiveness out to five years.

Although we have demonstrated the safety, effectiveness and clinical advantages of our solution in multiple clinical trials in approximately 450 patients selected using the Chartis System, the Zephyr Valve is still a relatively new treatment for severe emphysema. The long-term effects of using our solution in a large number of patients have not been studied and the results of short-term clinical use of such products do not necessarily predict long-term clinical benefits or reveal long-term adverse effects. We are required to conduct the LIBERATE extension study to follow up on safety and effectiveness out to five years. After the completion of the one-year follow up, 115 Zephyr Valve patients and 47 crossover patients (162 total patients) entered the LIBERATE extension study. The results of this extension study will not be available until February 2023. Our ability to interpret the data from this long-term follow-up of patients with this progressive disease may be limited by the fact that the matched control group exited the study after one year. The results of clinical trials of our solution conducted to date and ongoing or future studies and trials of our current, planned or future products may not be predictive of the results of later clinical trials, and interim results of a clinical trial do not necessarily predict final results. Our interpretation of data and results from our clinical trials do not ensure that we will achieve similar results in future clinical trials in other patient populations. In addition, pre-clinical and clinical data are often susceptible to various interpretations and analyses, and many companies that have believed their products performed satisfactorily in pre-clinical studies and earlier clinical trials have nonetheless failed to replicate results in later clinical trials and subsequently failed to obtain marketing approval. Products in later stages of clinical trials may fail to show the desired safety and efficacy despite having progressed through nonclinical studies and earlier clinical trials.

The continuing development of our products depends upon our maintaining strong working relationships with physicians.

The research, development, marketing and sale of our current products and potential new and improved products or future product indications for which we receive regulatory clearance or approval depend upon our maintaining working relationships with physicians. We rely on these professionals to provide us with considerable knowledge and experience regarding the development, marketing and sale of our products. Physicians assist us in clinical trials and in marketing, and as researchers, product consultants and public speakers. If we cannot maintain our strong working relationships with these professionals and continue to receive their advice and input, the development and marketing of our products could suffer, which could negatively affect our business, financial condition and results of operations. At the same time, the medical device industry's relationship with physicians is under increasing scrutiny by the U.S. Department of Health and Human Services Office of Inspector General (OIG), the U.S. Department of Justice (DOJ), the state attorneys general and other foreign and domestic government agencies. Our failure to comply with requirements governing the industry's relationships with physicians or an investigation into our compliance by the OIG, the DOJ, state attorneys general and other government agencies, could negatively affect our business, financial condition and results of operations. Additional information regarding the laws impacting our relationships with physicians and other healthcare professionals can be found below under "Risks Related to Government Regulation and Our Industry."

We rely on third parties to perform certain aspects of the CT scan analysis within the StratX Platform.

We rely on third-party service providers to upload and analyze CT scan data on the StratX Platform. In order to make the StratX Platform available to physicians, we contract with a third-party cloud service. This third-party cloud service enables physicians to upload CT scan data while removing protected health information (PHI) of patients from that data, in case the physicians have, inadvertently, not removed the PHI themselves. We also contract with additional third-party service providers to analyze the CT scan data using their proprietary software, and provide quantitative results via an easy-to-read report that we designed for our solution (StratX Lung Report). The StratX Lung Report is then made available to physicians in the third-party cloud service.

This service is critical and there are relatively few alternatives. These third-party service providers may be unwilling or unable to provide the necessary services reliably and at the levels we anticipate or that are required by the market. While these third-party service providers have generally met our demand for their services on a timely basis in the past, we cannot guarantee that they will in the future be able to meet our demand for their services, either because of acts of nature, the nature of our agreements or potential disputes with those service providers or our relative importance to them as a customer, and our service providers may decide in the future to discontinue or reduce the level of business they conduct with us. If we are required to change service providers for any reason, including due to any change in or termination of our relationships with these third parties, we may lose sales, experience delays, incur increased costs or otherwise experience impairment to our customer relationships. We cannot guarantee that we will be able to establish alternative relationships on similar terms, without delay or at all.

We depend on a limited number of single-source suppliers to manufacture our products, which makes us vulnerable to supply shortages and price fluctuations that could negatively affect our business, financial condition and results of operations.

We rely on single-source suppliers for the components, sub-assemblies and materials for our products. These components, sub-assemblies and materials are critical and there are no or relatively few alternative sources of supply. These single-source suppliers may be unwilling or unable to supply the necessary materials and components or manufacture and assemble our products reliably and at the levels we anticipate or that are required by the market. While our suppliers have generally met our demand for their products and services on a timely basis in the past, we cannot guarantee that they will in the future be able to meet our demand for their products, either because of acts of nature, the nature of our agreements with those manufacturers or our relative importance to them as a customer, and our suppliers may decide in the future to discontinue or reduce the level of business they conduct with us. If we are required to change suppliers due to any change in or termination of our relationships with these third parties, or if our suppliers are unable to obtain the materials they need to produce our products at consistent prices or at all, we may lose sales, experience manufacturing or other delays, incur increased costs or otherwise experience impairment to our customer relationships. We cannot guarantee that we will be able to establish alternative relationships on similar terms, without delay or at all.

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

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

We have limited experience manufacturing our products in significant commercial quantities and we face manufacturing risks that may adversely affect our ability to manufacture our products, reduce our gross margins and negatively affect our business, financial condition and results of operations.

Our business strategy depends on our ability to manufacture our current and future products in sufficient quantities and on a timely basis to meet customer demand, while adhering to product quality standards, complying with regulatory quality system requirements and managing manufacturing costs. We have a facility located in Redwood City, California, where we assemble, inspect, package, release and ship our products. We currently produce the Zephyr Valve and Chartis System at this facility, and we do not have redundant facilities. We also store finished goods at secondary facilities in Redwood City, California. If these facilities suffer damage, or a force majeure event, this could materially impact our ability to operate.

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

- quality and reliability of components, sub-assemblies and materials that we source from third-party suppliers, that are required to meet our quality specifications, many of whom are our single source suppliers for the products they supply;

- our inability to secure components, sub-assemblies and materials in a timely manner, in sufficient quantities or on commercially reasonable terms;

- our inability to maintain compliance with quality system requirements or pass regulatory quality inspections;

- disruptions in our production schedule and ability to manufacture and assemble products due to the COVID-19 pandemic;

- our failure to increase production capacity or volumes to meet demand;

- our inability to design or modify production processes to enable us to produce future products efficiently or implement changes in current products in response to design or regulatory requirements; and

- difficulty identifying and qualifying, and obtaining new regulatory approvals, for alternative suppliers for components in a timely manner.

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

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

To ensure adequate inventory supply, we must forecast inventory needs and manufacture the Zephyr Valve and Chartis System based on our estimates of future demand for our solution. Our ability to accurately forecast demand for our solution could be negatively affected by many factors, including our failure to accurately manage our expansion strategy, product introductions by competitors, an increase or decrease in customer demand for our solution or for products of our competitors, our failure to accurately forecast customer acceptance of new products, unanticipated changes in general market conditions or regulatory matters and weakening of economic conditions or consumer confidence in future economic conditions. Inventory levels in excess of customer demand may result in inventory write-downs or write-offs, which would cause our gross margin to be adversely affected and could impair the strength of our brand. Conversely, if we underestimate customer demand for our solution, our internal manufacturing team may not be able to deliver products to meet our requirements, and this could result in damage to our reputation and customer relationships. In addition, if we experience a significant increase in demand, additional supplies of raw materials or additional manufacturing capacity may not be available when required on terms that are acceptable to us, or at all, or suppliers or may not be able to allocate sufficient capacity in order to meet our increased requirements, which will negatively affect our business, financial condition and results of operations.

We seek to maintain sufficient levels of inventory in order to protect ourselves from supply interruptions. As a result, we are subject to the risk that a portion of our inventory will become obsolete or expire, which could have a material adverse effect on our earnings and cash flows due to the resulting costs associated with the inventory impairment charges and costs required to replace such inventory.

Our operating results may fluctuate significantly, which makes our future operating results difficult to predict and could cause our operating results to fall below expectations or any guidance we may provide.

Our quarterly and annual operating results may fluctuate significantly, which makes it difficult for us to predict our future operating results. Accordingly, the results of any one quarter or period should not be relied upon as an indication of future performance. Our quarterly and annual operating results may fluctuate as a result of a variety of factors, many of which are outside our control and, as a result, may not fully reflect the underlying performance of our business. These fluctuations may occur due to a variety of factors, many of which are outside of our control, including, but not limited to:

- the level of demand for our products and any future products, which may vary significantly;
- expenditures that we may incur to acquire, develop or commercialize additional products and technologies;
- the timing and cost of obtaining regulatory approvals or clearances for planned or future products or indications;
- unanticipated pricing pressures;
- the rate at which we grow our sales force and the speed at which newly hired salespeople become effective, and the cost and level of investment therein;
- our ability to expand the geographic reach of our sales force;
- the degree of competition in our industry and any change in the competitive landscape of our industry, including consolidation among our competitors or future partners;
- coverage and reimbursement policies with respect to our products, and potential future products that compete with our products;
- the timing and success or failure of pre-clinical studies or clinical trials for our products or any future products we develop or competing products;
- positive or negative coverage in the media or clinical publications of our products or products of our competitors or our industry;
- the timing of customer orders or medical procedures using our products and the number of available selling days in any quarterly period, which can be impacted by holidays, the mix of products sold and the geographic mix of where products are sold, including any related foreign currency impact;
- seasonality, including possible seasonal slowing of demand for our products in the beginning and end of the year and summer months based on the elective nature of procedures performed using our products, and which may become more pronounced in the future as our business grows;

- the ongoing and global impact that the COVID-19 pandemic had and may continue to have on our business and the number of patients treated with Zephyr Valves, or any other pandemic, epidemic or outbreak of an infectious disease;
- the timing and cost of, and level of investment in, research, development, licenses, regulatory approval, commercialization activities, acquisitions and other strategic transactions, or other significant events relating to our products, which may change from time to time;
- the cost of manufacturing our products, which may vary depending on the quantity of production and the terms of our agreements with third-party suppliers and manufacturers;
- the average number of Zephyr Valves used for a patient, pricing, discounts and incentives; and
- future accounting pronouncements or changes in our accounting policies.

The cumulative effects of these factors could result in large fluctuations and unpredictability in our quarterly and annual operating results. As a result, comparing our operating results on a period-to-period basis may not be meaningful. Further, our historical results are not necessarily indicative of results expected for any future period, and quarterly results are not necessarily indicative of the results to be expected for the full year or any other period, and accordingly should not be relied upon as indicative of future performance.

This variability and unpredictability could also result in our failing to meet the expectations of industry or financial analysts or investors for any period. If our revenue or operating results fall below the expectations of analysts or investors or below any forecasts we may provide to the market, it will negatively affect our business, financial condition and results of operations.

The sizes of the markets for our current and future products have not been established with precision and may be smaller than we estimate and may decline. Certain patients may not have regions of the lung with little to no collateral ventilation, making them poor candidates for the Zephyr Valve. In addition, if the overall rate of smokers continues to decline, this may eventually decrease the number of patients suffering from COPD and emphysema and, accordingly, who would benefit from our solution.

Our estimates of the annual total addressable markets for our current solution and products under development are based on a number of internal and third-party estimates, including, without limitation, the number of patients with severe emphysema treatable by our solution and the assumed prices at which we can sell our solution in markets that have not yet been established. While we believe our assumptions and the data underlying our estimates are reasonable, these assumptions and estimates may not be correct and the conditions supporting our assumptions or estimates may change at any time, thereby reducing the predictive accuracy of these underlying factors.

For example, certain of these patients may not have regions of the lung with little to no collateral ventilation, making them poor candidates for the Zephyr Valve. As a result, our estimates of the annual total addressable market for our current or future products may prove to be incorrect.

Further, cigarette smoking is one of the leading causes of COPD and emphysema. It is estimated that smoking accounts for as many as 80% of COPD-related deaths and 38% of the nearly 16 million adults in the United States diagnosed with COPD report being current smokers. The overall rate of smoking among the U.S. adult population has been steadily declining from 42.4% in 1965 to a record low of 13.7% in 2018 and there are increased efforts to decrease the rate of smoking globally. If the overall rate of smokers continues to decline, this may eventually decrease the number of patients suffering from COPD and emphysema and, accordingly, who would benefit from our solution.

If the actual number of patients who would benefit from our solution, the price at which we can sell future products, or the annual total addressable market for our solution is smaller than we have estimated, it may impair our sales growth and negatively affect our business, financial condition and results of operations.

Failure of a key information technology system, process, or site could negatively affect our business, financial condition and results of operations.

We depend on our information technology systems for the efficient functioning of our business, including the manufacture, distribution and maintenance of our products, as well as for accounting, data storage, compliance, purchasing and inventory management. We also depend on the information technology systems of third parties for the analysis, data storage and communication associated with the StratX Platform. We currently do not have redundant information technology systems. Our information technology systems, and those of third parties, may be subject to computer viruses, ransomware or other malware, attacks by computer hackers, failures during the process of upgrading or replacing software, databases or components thereof, power outages, damage or interruption from fires or other natural disasters, hardware failures, telecommunication failures and user errors, among other malfunctions. We, or the third parties we rely upon, could be subject to an unintentional event that involves a third party gaining unauthorized access to our or its systems, which could disrupt our operations, corrupt our data or result in release of our confidential information. Technological interruptions would disrupt our operations, including our ability to timely ship and track product orders, project inventory requirements, manage our supply chain and otherwise adequately service our customers or disrupt our customers' ability use our products for treatments. Moreover, a disruption in access to the system that controls the StratX Platform would prevent physicians using our solution from receiving the StratX Lung Report indicating whether their patients are good candidates for the Zephyr Valve. In the event we experience significant disruptions, we may be unable to repair our systems in an efficient and timely manner. Accordingly, such events may disrupt or reduce the efficiency of our entire operation and negatively affect our business, financial condition and results of operations. Currently, we carry business interruption coverage to mitigate certain potential losses but this insurance is limited in amount, and we cannot be certain that such potential losses will not exceed our policy limits. Further, we do not carry any cyber insurance, which may expose us to certain potential losses for damages or result in penalization with fines in an amount exceeding our resources. We are increasingly dependent on complex information technology to manage our infrastructure. Our information systems require an ongoing commitment of significant resources to maintain, protect and enhance our existing systems. Failure to maintain or protect our information systems and data integrity effectively could negatively affect our business, financial condition and results of operations.

Litigation against us could be costly and time-consuming to defend and could result in additional liabilities.

We may from time to time be subject to legal proceedings and claims that arise in the ordinary course of business or otherwise, such as claims brought by our customers in connection with commercial disputes and employment claims made by our current or former employees. Claims may also be asserted by or on behalf of a variety of other parties, including government agencies, patients or vendors of our customers, or stockholders. For example, our Swiss subsidiary is currently party to a lawsuit with a former distributor outside the United States alleging that our Swiss subsidiary conducted unfair competitive practices and violated the exclusive distribution rights as a result of its termination of its distribution agreement. Our Swiss subsidiary is also currently party to a lawsuit with a former distributor outside the United States alleging that our Swiss subsidiary terminated the agreement without proper compensation. While we believe these claims are meritless and, if successful, we do not believe the impact of such claims will be material to the Company's results of operations or financial position, an unfavorable outcome in this litigation could harm our business. Further, in the past, securities class action litigation has often been brought against a company following a decline in the market price of its securities, and this risk is especially relevant to industries that experience significant stock price volatility. Any litigation involving us may result in substantial costs, operationally restrict our business, and may divert management's attention and resources, which may negatively affect our business, financial condition and results of operations.

We face the risk of product liability claims that would be expensive, divert management's attention and harm our reputation and business. We may not be able to maintain adequate product liability insurance.

Our business exposes us to the risk of product liability claims that are inherent in the testing, manufacturing and marketing of medical devices. This risk exists even if a device is cleared or approved for commercial sale by the FDA and manufactured in facilities licensed and regulated by the FDA or an applicable foreign regulatory authority. The Zephyr Valve is designed to affect, and any future products will be designed to affect, important bodily functions and processes. Any side effects, manufacturing defects, misuse or abuse associated with the Zephyr Valve could result in patient injury or death. The medical device industry has historically been subject to extensive litigation over product liability claims, and we cannot offer any assurance that we will not face product liability suits. As discussed under "Business—Clinical Trials and Results," there were procedure-related deaths in our LIBERATE Study and we may be subject to product liability claims if the Zephyr Valve causes, or merely appears to have caused, patient injury or death. In addition, an injury that is caused by the activities of our suppliers, such as those who provide us with components and raw materials, may be the basis for a claim against us. Product liability claims may be brought against us by patients, physicians, or others selling or otherwise coming into contact with the Zephyr Valve, among others. If we cannot successfully defend ourselves against product liability claims, we will incur substantial liabilities and reputational harm. In addition, regardless of merit or eventual outcome, product liability claims may result in:

- costs of litigation;
- distraction of management's attention from our primary business;
- the inability to commercialize our solution or new products;
- decreased demand for our products;
- damage to our business reputation;
- product recalls or withdrawals from the market;
- withdrawal of clinical trial participants;
- substantial monetary awards to patients or other claimants; or
- loss of sales.

While we may attempt to manage our product liability exposure by proactively recalling or withdrawing from the market any defective products, any recall or market withdrawal of our products may delay the supply of those products to our customers and may impact our reputation. We can provide no assurance that we will be successful in initiating appropriate market recall or market withdrawal efforts that may be required in the future or that these efforts will have the intended effect of preventing product malfunctions and the accompanying product liability that may result. Such recalls and withdrawals may also be used by our competitors to harm our reputation for safety or be perceived by patients as a safety risk when considering the use of our solution, either of which could negatively affect our business, financial condition and results of operations.

Our insurance policies are expensive and protect us only from some business risks, which leaves us exposed to significant uninsured liabilities.

We do not carry insurance for all categories of risk that our business may encounter. Although we have product liability and clinical study liability insurance that we believe is appropriate, this insurance is subject to deductibles and coverage limitations. Our current product liability insurance may not continue to be available to us on acceptable terms, if at all, and, if available, coverage may not be adequate to protect us against any future product liability claims. If we are unable to obtain insurance at an acceptable cost or on acceptable terms or otherwise protect against potential product liability claims, we could be exposed to significant liabilities. A product liability claim, recall or other claim with respect to uninsured liabilities or for amounts in excess of insured liabilities could negatively affect our business, financial condition and results of operations. We do not carry specific hazardous waste insurance coverage, and our property, casualty and general liability insurance policies specifically exclude coverage for damages and fines arising from hazardous waste exposure or contamination. Accordingly, in the event of contamination or injury, we could be held liable for damages or be penalized with fines in an amount exceeding our resources, and our clinical trials or regulatory approvals could be suspended. Additionally, we do not carry cyber insurance, which may expose us to certain potential losses for damages or result in penalization with fines in an amount exceeding our resources.

We also expect that operating as a public company will make it more difficult and more expensive for us to obtain director and officer liability insurance, and we may be required to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. As a result, it may be more difficult for us to attract and retain qualified people to serve on our board of directors, on our board committees or as executive officers. We do not know, however, if we will be able to maintain existing insurance with adequate levels of coverage. Any significant uninsured liability may require us to pay substantial amounts, which would negatively affect our business, financial condition and results of operations.

Our indebtedness may limit our flexibility in operating our business and negatively affect our business, financial condition, results of operations and competitive position.

In April 2020, we issued and sold the 2020 Notes in the aggregate principal amount of $33.0 million. We have the option to call up to an additional $33.0 million of 2020 Notes for a maximum aggregate amount of $66.0 million, subject to customary closing conditions, provided that any such call be for no less than $5.0 million on or prior to April 17, 2022. All unpaid interest and principal will be due and payable upon request of the majority of Lenders on or after the earlier of April 17, 2022 or an event of default. The 2020 Notes accrue interest at a rate equal to 2.0% above the Wall Street Journal Prime Rate. Upon the closing of this offering, the 2020 Notes, including accrued interest thereon, will automatically convert into a number of shares of common stock at a per share conversion price equal to the lesser of (i) 85% of the initial public offering price and (ii) $13.20 per share. Assuming a closing date of this offering and conversion date of October 2, 2020 and an initial public offering price of $15.00 per share (which is the midpoint of the price range set forth on the cover page of this prospectus), the aggregate outstanding principal amount plus accrued interest under the 2020 Notes will automatically convert into 2,650,773 shares of our common stock immediately prior to the completion of this offering at a conversion price of $12.75 per share. In February 2020, we terminated and paid off in full all amounts outstanding under the Oxford Agreement. In February 2020, we executed a Loan and Security Agreement (the CIBC Agreement) with Canadian Imperial Bank of Commerce (CIBC), which provided us with the ability to borrow up to $32.0 million in debt financing. As of June 30, 2020, we have borrowed $17.0 million under the CIBC Agreement. See the sections entitled "Management’s Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources; Plan of Operation—2020 Notes", “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources; Plan of Operation—CIBC Term Loan" and the notes to our consolidated financial statements included elsewhere in this prospectus.

In order to service this indebtedness and any additional indebtedness we may incur in the future, we need to generate cash from our operating activities. Our ability to generate cash is subject, in part, to our ability to successfully execute our business strategy, as well as general economic, financial, competitive, regulatory and other factors beyond our control. We cannot assure you that our business will be able to generate sufficient cash flow from operations or that future borrowings or other financings will be available to us in an amount sufficient to enable us to service our indebtedness and fund our other liquidity needs. To the extent we are required to use cash from operations or the proceeds of any future financing to service our indebtedness instead of funding working capital, capital expenditures or other general corporate purposes, we will be less able to plan for, or react to, changes in our business, industry and in the economy generally. This will place us at a competitive disadvantage compared to our competitors that have less indebtedness.

In addition, the CIBC Agreement contains, and any agreements evidencing or governing other future indebtedness may contain, certain covenants that limit our ability to engage in certain transactions that may be in our long-term best interests. Subject to certain limited exceptions, these covenants limit our ability to, among other things:

- convey, sell, lease, transfer, assign, dispose of or otherwise make cash payments consisting of all or any part of our business or property;
- effect certain changes in our business, management, ownership or business locations;

- merge or consolidate with, or acquire all or substantially all of the capital stock or assets of, any other company;
- create, incur, assume or be liable for any additional indebtedness, or create, incur, allow or permit to exist any additional liens;
- pay cash dividends on, make any other distributions in respect of, or redeem, retire or repurchase, any shares of our capital stock;
- make certain investments;
- enter into transactions with our affiliates; and
- under certain circumstances, settle pending or threatened litigation for greater amounts than are disclosed to CIBC in writing from time to time.

While we have not previously breached and are not currently in breach of these or any of the other covenants contained in the CIBC Agreement, there can be no guarantee that we will not breach these covenants in the future. Our ability to comply with these covenants may be affected by events and factors beyond our control. In the event that we breach one or more covenants, our lender may choose to declare an event of default and require that we immediately repay all amounts outstanding, terminate any commitment to extend further credit and foreclose on the collateral granted to it to collateralize such indebtedness. The occurrence of any of these events could negatively affect our business, financial condition and results of operations.

Our industry is highly competitive, and we may not be able to compete successfully with larger companies, companies with longer operating histories or more established products, or companies with greater resources.

Our industry is subject to rapid change from the introduction of new products and technologies and other activities of industry participants. Our goal is to establish our solution as a standard of care for severe emphysema. Existing treatments include medical management, LVRS, lung transplantation as well as other minimally invasive treatments. The major competitive products include the Spiration Valve System (Olympus Corporation) and the InterVapor System (Broncus Medical, Inc.; not approved for use in the United States). The Spiration Valve System is an endobronchial technology designed to offer patients with severe emphysema a minimally invasive treatment option for lung volume reduction by redirecting air away from diseased areas of the lung to healthier tissue so that patients may breathe easier. Like Zephyr Valves, the Spiration Valve System is indicated to treat patients with heterogeneous emphysema; however, the Spiration Valve System is contraindicated for patients with homogeneous emphysema. The InterVapor System offers a non-surgical and non-implant therapy developed for lung disease including emphysema and lung cancer where vapor ablation is simply the application of heated pure water to tissue. These technologies, other products that are in current clinical trials, new drugs or additional indications for existing drugs could demonstrate better safety, effectiveness, clinical results, lower costs or greater physician and patient acceptance.

We compete, or may compete in the future, against other companies which have longer operating histories, more established products and greater resources, which may prevent us from achieving significant market penetration or improved operating results. These companies enjoy several competitive advantages, including established relationships with pulmonologists who commonly treat patients with emphysema, significantly greater name recognition and significantly greater sales and marketing resources.

In addition to existing competitors, other larger and more established companies may acquire or in-license competitive products and could directly compete with us. These competitors may also try to compete with us on price both directly, through rebates and promotional programs to high volume physicians and coupons to patients, and indirectly, through attractive product bundling with complementary products that offer convenience and an effectively lower price compared to the total price of purchasing each product separately. Larger competitors may also be able to offer greater customer loyalty benefits to encourage repeat use of their products and finance a sustained global advertising campaign to compete with commercialization efforts of our products. Our competitors may seek to discredit our products by challenging our short operating history or relatively limited number of scientific studies and publications. Smaller companies could also launch new or enhanced products and services that we do not offer and that could gain market acceptance quickly. Additionally, certain of our competitors may challenge our intellectual property, may develop additional competing or superior technologies and processes and compete more aggressively and sustain that competition over a longer period of time than we could. Our technologies and products may be rendered obsolete or uneconomical by technological advances or entirely different approaches developed by one or more of our competitors. As more companies develop new intellectual property in our market, there is the possibility of a competitor acquiring patents or other rights that may limit our ability to update our technologies and products which may impact demand for our products.

We have increased the size of our organization and expect to further increase it in the future. If we are unable to manage the anticipated growth, our business, financial condition and results of operations will be negatively affected.

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

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

We expect to continue to incur net losses for the next several years and we expect to require substantial additional capital beyond the proceeds of this offering to finance our planned operations, which may include future equity and debt financings. This additional capital may not be available to us on acceptable terms or at all. Our failure to obtain additional financing when needed on acceptable terms, or at all, could force us to delay, limit, reduce or eliminate our commercialization, sales and marketing efforts, product development programs or other operations.

Since inception, we have incurred significant net losses and expect to continue to incur net losses for the foreseeable future. Since our inception, our operations have been financed primarily through private placements of equity securities, debt financing arrangements and sales of our products. As of June 30, 2020, we had $43.3 million in cash and cash equivalents, and an accumulated deficit of $229.6 million. Based on our current planned operations, we expect our cash and cash equivalents, together with available borrowings under the CIBC Agreement and the proceeds from this offering, will enable us to fund our operating expenses for at least the next twelve months. We have based this estimate on assumptions that may prove to be wrong, and we could use our capital resources sooner than we currently expect.

We expect to continue to make substantial investments in clinical trials that are designed to provide clinical evidence of the safety and efficacy of our solution. We intend to continue to make significant investments in our sales and marketing organization by increasing the number of U.S. sales territory managers and expanding our international sales and marketing programs to help promote awareness and increase adoption of our solution primarily among the approximately 800 pulmonologists performing interventional pulmonary procedures across approximately 500 high volume hospitals. In order to continue to grow our business, we will need to hire additional sales personnel to efficiently serve the market. We also expect to continue to make investments in research and development, regulatory affairs and clinical studies to develop future generations of our solution, broaden the addressable market and expand indications, support regulatory submissions and demonstrate the clinical efficacy of our solution. Moreover, we expect to incur additional expenses associated with operating as a public company, including legal, accounting, insurance, exchange listing and Securities and Exchange Commission (SEC) compliance, investor relations and other expenses. Because of these and other factors, we expect to continue to incur substantial net losses and negative cash flows from operations for the foreseeable future. Our future capital requirements will depend on many factors, including:

- the cost, timing and results of our clinical trials and regulatory reviews;
- the cost and timing of establishing sales, marketing and distribution capabilities;
- the impact of the COVID-19 pandemic on our business;
- the terms and timing of any other collaborative, licensing and other arrangements that we may establish;
- the timing, receipt and amount of sales from our current solution and potential future products;
- the degree of success we experience in continuing to commercialize our solution;
- the emergence of competing or complementary technologies;
- the cost of preparing, filing, prosecuting, maintaining, defending and enforcing any patent claims and other intellectual property rights; and
- the extent to which we acquire or invest in businesses, products or technologies, although we currently have no commitments or agreements relating to any of these types of transactions.

We will require additional financing to fund working capital and pay our obligations. We may seek to raise any necessary additional capital through a combination of public or private equity offerings or debt financings. There can be no assurance that we will be successful in acquiring additional funding at levels sufficient to fund our operations or on terms favorable to us. If adequate funds are not available on acceptable terms when needed, we may be required to significantly reduce operating expenses, which may negatively affect our business, financial condition and results of operations. If we do raise additional capital through public or private equity or convertible debt offerings, the ownership interest of our existing stockholders will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect our stockholders' rights. If we raise additional capital through debt financing, we may be subject to covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. Additional capital may not be available on reasonable terms, or at all.

If the quality of our solution does not meet the expectations of physicians or patients, then our business and reputation may be harmed.

In the course of conducting our business, we must adequately address quality issues that may arise with our solution, including defects in third-party components included in our solution. Although we have established internal procedures designed to minimize risks that may arise from quality issues, there can be no assurance that we will be able to eliminate or mitigate occurrences of these issues and associated liabilities. In addition, even in the absence of quality issues, we may be subject to claims and liability if the performance of the Zephyr Valves does not live up to the expectations of physicians or patients as a result of the physician's implantation of the valve. For example, a physician may improperly implant the Zephyr Valve. If the quality of our solution does not meet the expectations of physicians or patients, then our business and reputation with those physicians or patients may negatively affect our business, financial condition and results of operations.

If our facilities become damaged or inoperable, we will be unable to continue to research, develop and supply our solution which could negatively affect our business, financial condition and results of operations until we are able to secure a new facility and rebuild our inventory.

We do not have redundant facilities. We perform substantially all of our manufacturing, research and development and back office activity in a single location at our headquarters in Redwood City, California. We store our finished goods inventory at our headquarters and secondary facilities in Redwood City, California. Our facilities, equipment and inventory would be costly to replace and could require substantial lead time to repair or replace. The facilities will be harmed or rendered inoperable by natural or man-made disasters, including, but not limited to, earthquakes, flooding, fire and power outages, which may render it difficult or impossible for us to perform our research, development and commercialization activities for some period of time. The inability to perform those activities, combined with the time it may take to rebuild our manufacturing capabilities, inventory of finished product, may result in the loss of customers or harm to our reputation. Although we possess insurance for damage to our property and the disruption of our business, this insurance may not be sufficient to cover all of our potential losses and this insurance may not continue to be available to us on acceptable terms, or at all.

Performance issues, service interruptions or price increases by our shipping carriers could negatively affect our business, financial condition and results of operations and harm our reputation and the relationship between us and the hospitals with which we work.

Expedited, reliable shipping is essential to our operations. We rely heavily on providers of transport services for reliable and secure point-to-point transport of the Zephyr Valve and Chartis System to our customers and for tracking of these shipments. Should a carrier encounter delivery performance issues such as loss, damage or destruction of any systems, it would be costly to replace such systems in a timely manner and such occurrences may damage our reputation and lead to decreased demand for our solution and increased cost and expense to our business. In addition, any significant increase in shipping rates could adversely affect our operating margins and results of operations. Similarly, strikes, severe weather, natural disasters or other service interruptions affecting delivery services we use would adversely affect our ability to process orders for the Zephyr Valve on a timely basis.

We depend on our senior management team and the loss of one or more key employees or an inability to attract and retain highly skilled employees will negatively affect our business, financial condition and results of operations.

Our success depends in part on our continued ability to attract, retain and motivate highly qualified management, clinical and other personnel. We are highly dependent upon our management team, particularly our Chief Executive Officer, and the rest of our senior management, and other key personnel. Although we have entered into employment letter agreements with all of our executive officers, each of them may terminate their employment with us at any time. The replacement of any of our key personnel likely would involve significant time and costs and may significantly delay or prevent the achievement of our business objectives and could therefore negatively affect our business, financial condition and results of operations. In addition, we do not carry any key person insurance policies that could offset potential loss of service under applicable circumstances.

In addition, our research and development programs and clinical operations depend on our ability to attract and retain highly skilled engineers and medical researchers. We may not be able to attract or retain qualified engineers and medical researchers in the future due to the competition for qualified personnel. We have from time to time experienced, and we expect to continue to experience, difficulty in hiring and retaining employees with appropriate qualifications. Many of the companies with which we compete for experienced personnel have greater resources than us. If we hire employees from competitors or other companies, their former employers may attempt to assert that these employees or we have breached legal obligations, resulting in a diversion of our time and resources and, potentially, damages.

In addition, job candidates and existing employees, particularly in the San Francisco Bay Area, often consider the value of the stock awards they receive in connection with their employment. If the perceived value of our stock awards declines, it may harm our ability to recruit and retain highly skilled employees. Many of our employees have become or will soon become vested in a substantial amount of our common stock or a number of common stock options. Our employees may be more likely to leave us if the shares they own have significantly appreciated in value relative to the original purchase prices of the shares, or if the exercise prices of the options that they hold are significantly below the market price of our common stock, particularly after the expiration of the lock-up agreements described herein. Our future success also depends on our ability to continue to attract and retain additional executive officers and other key employees. If we fail to attract new personnel or fail to retain and motivate our current personnel, it will negatively affect our business, financial condition and results of operations.

We have significant international operations, and to successfully market and sell our products in such international markets we must address international business risks with which we have limited experience.

Sales in markets outside of the United States accounted for approximately 67.2% and 51.4% of our revenue for the year ended December 31, 2019 and six months ended June 30, 2020, respectively. We currently focus our international sales and marketing efforts in Australia, Austria, Belgium, China, France, Germany, Italy, the Netherlands, South Korea, Spain, Switzerland and the United Kingdom. International sales are subject to a number of risks, including:

- difficulties in staffing and managing our international operations;
- increased competition as a result of more products and procedures receiving regulatory approval or otherwise free to market in international markets;
- longer accounts receivable payment cycles and difficulties in collecting accounts receivable;
- reduced or varied protection for intellectual property rights in some countries;
- export restrictions, trade regulations and foreign tax laws;
- fluctuations in currency exchange rates;
- foreign certification and regulatory clearance or approval requirements;
- difficulties in developing effective marketing campaigns in unfamiliar foreign countries;
- customs clearance and shipping delays;
- political, social, and economic instability abroad, global health epidemics or other contagious diseases (including the impact of the COVID-19 pandemic), terrorist attacks and security concerns in general;
- preference for locally produced products;
- potentially adverse tax consequences, including the complexities of foreign value-added tax systems, tax inefficiencies related to our corporate structure, and restrictions on the repatriation of earnings;
- differing payment and reimbursement regimes;
- the burdens of complying with a wide variety of foreign laws and different legal standards; and
- increased financial accounting and reporting burdens and complexities.

For example, the COVID-19 pandemic significantly decreased and may continue to have a negative impact on the sale of our products and the number of patients treated with our solution. The outbreak has also resulted in disruptions or restrictions on physicians, hospitals and other healthcare providers from treating patients that are eligible for our products due to the uncertain health effects of the coronavirus on the respiratory system and resources that are diverted to prioritize treatment and containment of the coronavirus outbreak. In addition, the COVID-19 pandemic has also resulted in business closures and disruptions that may continue to affect various suppliers of ancillary products used in the delivery of our product (e.g. gowns, face masks or gloves), including disruptions and restrictions on transportation of our products and could result in significant delays. In addition, a significant outbreak of coronavirus and other contagious diseases could result in a widespread health crisis that could adversely affect the economies and financial markets worldwide, resulting in an economic downturn that could affect demand for our products and impact our business, financial condition and results of operations.

If one or more of these risks are realized, it will negatively affect our business, financial condition and results of operations.

Our history of recurring losses and anticipated expenditures raise substantial doubts about our ability to continue as a going concern. Our ability to continue as a going concern requires that we obtain sufficient funding to finance our operations.

We have incurred operating losses to date and it is possible we will never generate profit. We have concluded that substantial doubt exists regarding our ability to continue as a going concern. Our audited financial statements appearing at the end of this prospectus have been prepared on a going concern basis, which contemplates the realization of assets and satisfaction of liabilities in the ordinary course of business. These financial statements do not include any adjustments relating to the recoverability and classification of recorded asset amounts or the amounts and classification of liabilities that might result from the outcome of these uncertainties related to our ability to operate on a going concern basis.

The report of our independent registered public accounting firm on our consolidated financial statements as of and for the year ended December 31, 2019 includes an explanatory paragraph indicating that there is substantial doubt about our ability to continue as a going concern. If we are unable to raise sufficient capital when needed, our business, financial condition and results of operations will be materially and adversely affected, and we will need to significantly modify our operational plans to continue as a going concern. If we are unable to continue as a going concern, we might have to liquidate our assets and the values we receive for our assets in liquidation or dissolution could be significantly lower than the values reflected in our financial statements. The inclusion of a going concern explanatory paragraph by our auditors, our lack of cash resources and our potential inability to continue as a going concern may materially adversely affect our share price and our ability to raise new capital or to enter into critical contractual relations with third parties due to concerns about our ability to meet our contractual obligations.

Security breaches, loss of data and other disruptions could compromise sensitive information related to our business or the physicians who use our solution and the patients they treat, or prevent us from assessing critical information and expose us to liability, which could negatively affect our business, financial condition and results of operations and our reputation.

In the ordinary course of our business, we may become exposed to, or collect and store sensitive data, including procedure-based information and legally PHI, credit card, and other financial information, insurance information, and other potentially personally identifiable information. For example, we may fail to remove all PHI from CT scan data on the StratX Platform. We also store sensitive intellectual property and other proprietary business information. Although we are in the process of implementing policies and procedures designed to ensure compliance with applicable data security and privacy-related laws and regulations and we take measures to protect sensitive information from unauthorized access or disclosure, our information technology (IT) and infrastructure, and other technology partners and providers, may be vulnerable to cyber-attacks by hackers or viruses or breaches due to employee error, malfeasance or other disruptions. We rely extensively on IT systems, networks and services, including internet sites, data hosting and processing facilities and tools, physical security systems and other hardware, software and technical applications and platforms, some of which are managed, hosted, provided or used by third-parties or their vendors, to assist in conducting our business. A significant breakdown, invasion, corruption, destruction or interruption of critical information technology systems or infrastructure, by our workforce, others with authorized access to our systems or unauthorized persons could negatively impact operations. The use of cloud-based computing creates opportunities for the unintentional dissemination or intentional destruction of confidential information stored in our or our third-party providers' systems, portable media or storage devices. For example, companies have recently experienced an increase in phishing and social engineering attacks from third-parties. We could also experience a business interruption, theft of confidential information or reputational damage from industrial espionage attacks, malware or other cyber-attacks, which may compromise our system infrastructure or lead to data leakage, either internally or at our third-party providers and we do not carry cyber insurance, which may expose us to certain potential losses for damages or result in penalization with fines in an amount exceeding our resources. Although the aggregate impact on our operations and financial condition has not been material to date, we have occasionally been the target of events of this nature and expect them to continue as cybersecurity threats have been rapidly evolving in sophistication and becoming more prevalent in the industry. We are investing in protections and monitoring practices of our data and IT to reduce these risks and continue to monitor our systems on an ongoing basis for any current or potential threats. We cannot assure you, however, that our efforts will prevent breakdowns or breaches to our or our third-party providers' databases or systems, and such breakdowns and breaches could negatively affect our business, financial condition and results of operations and our reputation.

We may enter into collaborations, in-licensing arrangements, joint ventures, strategic alliances or partnerships with third parties that may not result in the development of commercially viable products, product improvements or the generation of significant future revenues.

In the ordinary course of our business, we may enter into collaborations, in-licensing arrangements, joint ventures, strategic alliances, partnerships or other arrangements to develop new products or product improvements and to pursue new markets. Proposing, negotiating and implementing collaborations, in-licensing arrangements, joint ventures, strategic alliances or partnerships may be a lengthy and complex process. Other companies, including those with substantially greater financial, marketing, sales, technology or other business resources, may compete with us for these opportunities or arrangements. We may not identify, secure, or complete any such transactions or arrangements in a timely manner, on a cost-effective basis, on acceptable terms or at all. We have limited institutional knowledge and experience with respect to these business development activities, and we may also not realize the anticipated benefits of any such transaction or arrangement. In particular, these collaborations may not result in the development of products that achieve commercial success or viable product improvements or result in significant revenues and could be terminated prior to developing any products.

Additionally, we may not be in a position to exercise sole decision making authority regarding the transaction or arrangement, which could create the potential risk of creating impasses on decisions, and our future collaborators may have economic or business interests or goals that are, or that may become, inconsistent with our business interests or goals. It is possible that conflicts may arise with our collaborators, such as conflicts concerning the achievement of performance milestones, or the interpretation of significant terms under any agreement, such as those related to financial obligations or the ownership or control of intellectual property developed during the collaboration. If any conflicts arise with any future collaborators, they may act in their self-interest, which may be adverse to our best interest, and they may breach their obligations to us. In addition, we may have limited control over the amount and timing of resources that any future collaborators devote to our or their future products.

Disputes between us and our collaborators may result in litigation or arbitration which would increase our expenses and divert the attention of our management. Further, these transactions and arrangements will be contractual in nature and will generally be terminable under the terms of the applicable agreements and, in such event, we may not continue to have rights to the products relating to such transaction or arrangement or may need to purchase such rights at a premium. If we enter into in-bound intellectual property license agreements, we may not be able to fully protect the licensed intellectual property rights or maintain those licenses. Future licensors could retain the right to prosecute and defend the intellectual property rights licensed to us, in which case we would depend on the ability of our licensors to obtain, maintain and enforce intellectual property protection for the licensed intellectual property. These licensors may determine not to pursue litigation against other companies or may pursue such litigation less aggressively than we would. Further, entering into such license agreements could impose various diligence, commercialization, royalty or other obligations on us. Future licensors may allege that we have breached our license agreement with them, and accordingly seek to terminate our license, which could adversely affect our competitive business position and harm our business prospects.

Unfavorable global economic conditions could negatively 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. A severe or prolonged economic downturn, such as the global financial crisis of 2008, could result in a variety of risks to our business, including weakened demand for our solution, and our ability to raise additional capital when needed on acceptable terms, if at all. A weak or declining economy, including due to the impact of the COVID-19 pandemic, could also strain our suppliers, possibly resulting in supply disruption, or cause our customers to delay making payments for our services. Any of the foregoing will negatively affect our business, financial condition and results of operations and we cannot anticipate all of the ways in which the economic climate and financial market conditions could negatively affect our business, financial condition and results of operations.

We may acquire other companies or technologies, which could divert our management's attention, result in additional dilution to our stockholders and otherwise negatively affect our business, financial condition and results of operations.

We may in the future seek to acquire or invest in businesses, applications or technologies that we believe could complement or expand our current business, enhance our technical capabilities or otherwise offer growth opportunities. Accordingly, although we have no current commitments with respect to any acquisition or investment, we may in the future pursue the acquisition of, or joint ventures relating to, complementary businesses, applications or technologies instead of developing them ourselves. The pursuit of potential acquisitions may divert the attention of management and cause us to incur various costs and expenses in identifying, investigating and pursuing suitable acquisitions, whether or not they are consummated. We may not be able to identify desirable acquisition targets or be successful in entering into an agreement with any particular target or obtain the expected benefits of any acquisition or investment.

We may not be able to successfully integrate acquired personnel, operations and technologies, or effectively manage the combined business following an acquisition. Acquisitions could also result in dilutive issuances of equity securities, the use of our available cash, or the incurrence of debt, which will harm our operating results. In addition, if an acquired business fails to meet our expectations, it will negatively affect our business, financial condition and results of operations.

Consolidation in the healthcare industry or group purchasing organizations could lead to demands for price concessions, which may affect our ability to sell our products at prices necessary to support our current business strategies.

The commercial payor industry is undergoing significant consolidation. When payors combine their operations, the combined company may elect to reimburse our products at the lowest rate paid by any of the participants in the consolidation or use its increased size to negotiate reduced rates. If one of the payors participating in the consolidation does not reimburse for the Zephyr Valve and our solution at all, the combined company may elect not to reimburse for the same, which would adversely impact our operating results.

Our long-term growth depends on our ability to enhance our solution, expand our indications and develop and commercialize additional products. If we fail to identify, acquire and develop other products, we may be unable to grow our business.

It is important to our business that we continue to enhance the Zephyr Valve, Chartis System and StratX Platform and develop and introduce new products. Developing products is expensive and time-consuming and could divert management's attention away from our core business. The success of any new product offering or product enhancements to our solution will depend on several factors, including our ability to:

- assemble sufficient resources to acquire or discover additional products;
- properly identify and anticipate physician and patient needs;
- develop and introduce new products and product enhancements in a timely manner;
- avoid infringing upon the intellectual property rights of third parties;
- demonstrate, if required, the safety and efficacy of new products with data from pre-clinical studies and clinical trials;
- obtain the necessary regulatory clearances or approvals for expanded indications, new products or product modifications;
- be fully FDA-compliant with marketing of new devices or modified products;
- produce new products in commercial quantities at an acceptable cost;
- provide adequate training to potential users of our products;
- receive adequate coverage and reimbursement for procedures performed with our products; and
- develop an effective and dedicated sales and marketing team.

If we are not successful in expanding our indications and developing and commercializing new products and product enhancements, our ability to increase our revenue may be impaired, which could have a material adverse effect on our business, financial condition and results of operations.

In addition, we may choose to focus our efforts and resources on a potential products or indication that ultimately prove to be unsuccessful, or to license or purchase a marketed product that does not meet our financial expectations. As a result, we may fail to capitalize on viable commercial products or profitable market opportunities, be required to forego or delay pursuit of opportunities with other potential products or other diseases that may later prove to have greater commercial potential, or relinquish valuable rights to such potential products through collaboration, licensing or other royalty arrangements in cases in which it would have been advantageous for us to retain sole development and commercialization rights, which could adversely impact our business, financial condition and results of operations.

We may expend our limited resources to pursue a particular product candidate or indication and fail to capitalize on product candidates or indications that may be more profitable or for which there is a greater likelihood of success.

Because we have limited financial and managerial resources, we focus on research programs and products and product candidates that we identify for specific indications. As a result, we may forego or delay pursuit of opportunities with other products or product candidates or for other indications that later prove to have greater commercial potential. Our resource allocation decisions may cause us to fail to timely capitalize on viable commercial products or profitable market opportunities. Our spending on current and future research and development programs and products and product candidates for specific indications may not yield any commercially viable products. If we do not accurately evaluate the commercial potential or target market for a particular product or product candidate, we may relinquish valuable rights to that product or product candidate through collaboration, licensing or other royalty arrangements in cases in which it would have been more advantageous for us to retain sole development and commercialization rights to such product candidate.

We are subject to anti-bribery, anti-corruption, and anti-money laundering laws, including the U.S. Foreign Corrupt Practices Act, as well as export control laws, customs laws, sanctions laws and other laws governing our operations. If we fail to comply with these laws, we could be subject to civil or criminal penalties, other remedial measures and legal expenses, which could negatively affect our business, financial condition and results of operations.

As we grow our international presence and global operations, we will be increasingly exposed to trade and economic sanctions and other restrictions imposed by the United States, the European Union and other governments and organizations. The U.S. Departments of Justice, Commerce, State and Treasury and other federal agencies and authorities have a broad range of civil and criminal penalties they may seek to impose against corporations and individuals for violations of economic sanctions laws, export control laws, the U.S. Foreign Corrupt Practices Act (FCPA), and other federal statutes and regulations, including those established by the Office of Foreign Assets Control (OFAC). In addition, the U.K. Bribery Act of 2010 (Bribery Act) prohibits both domestic and international bribery, as well as bribery across both private and public sectors. An organization that fails to prevent bribery by anyone associated with the organization can be charged under the Bribery Act unless the organization can establish the defense of having implemented adequate procedures to prevent bribery. Under these laws and regulations, as well as other anti-corruption laws, anti-money laundering laws, export control laws, customs laws, sanctions laws and other laws governing our operations, various government agencies may require export licenses, may seek to impose modifications to business practices, including cessation of business activities in sanctioned countries or with sanctioned persons or entities and modifications to compliance programs, which may increase compliance costs, and may subject us to fines, penalties and other sanctions. A violation of these laws or regulations would negatively affect our business, financial condition and results of operations.

We are in the process of enhancing policies and procedures designed to ensure compliance by us and our directors, officers, employees, representatives, consultants and agents with the FCPA, OFAC restrictions, the Bribery Act and other export control, anti-corruption, anti-money-laundering and anti-terrorism laws and regulations. We cannot assure you, however, that our policies and procedures are or will be sufficient or that directors, officers, employees, representatives, consultants and agents have not engaged and will not engage in conduct for which we may be held responsible, nor can we assure you that our business partners have not engaged and will not engage in conduct that could materially affect their ability to perform their contractual obligations to us or even result in our being held liable for such conduct. Violations of the FCPA, OFAC restrictions, the Bribery Act or other export control, anti-corruption, anti-money laundering and anti-terrorism laws or regulations may result in severe criminal or civil sanctions, and we may be subject to other liabilities, which could negatively affect our business, financial condition and results of operations.

Our results may be impacted by changes in foreign currency exchange rates.

A significant proportion of our sales are outside of the United States, and a majority of those are denominated in foreign currencies, which exposes us to foreign currency risks, including changes in currency exchange rates. We do not currently engage in any hedging transactions. If we are unable to address these risks and challenges effectively, our international operations may not be successful, and our business could be harmed.

Our ability to utilize our net operating loss carryforwards and research and development credit may be limited.

In general, under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended (Code) a corporation that undergoes an ownership change, generally defined as a greater than 50% change by value in its equity ownership over a three-year period, is subject to limitations on its ability to utilize its pre-change net operating losses (NOLs) and its research and development credit carryforwards to offset future taxable income. Our existing NOLs and research and development credit carryforwards may be subject to limitations arising from previous ownership changes, and if we undergo an ownership change, our ability to utilize NOLs and research and development credit carryforwards could be further limited by Sections 382 and 383 of the Code. In addition, our ability to deduct net interest expense may be limited if we have insufficient taxable income for the year during which the interest is incurred, and any carryovers of such disallowed interest would be subject to the limitation rules similar to those applicable to NOLs and other attributes. Future changes in our stock ownership, some of which might be beyond our control, could result in an ownership change under Section 382 of the Code. For these reasons, in the event we experience a change of control, we may not be able to utilize a material portion of the NOLs, research and development credit carryforwards or disallowed interest expense carryovers, even if we attain profitability.

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

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

Governmental export or import controls could limit our ability to compete in foreign markets and subject us to liability if we violate them.

Our products may be subject to U.S. export controls. Governmental regulation of the import or export of our products, or our failure to obtain any required import or export authorization for our products, when applicable, will harm our international sales and adversely affect our revenue. Compliance with applicable regulatory requirements regarding the export of our products may create delays in the introduction of our products in international markets or, in some cases, prevent the export of our products to some countries altogether. Furthermore, U.S. export control laws and economic sanctions prohibit the shipment of certain products and services to countries, governments and persons targeted by U.S. sanctions. If we fail to comply with export and import regulations and such economic sanctions, we may be fined or other penalties could be imposed, including a denial of certain export privileges. Moreover, any new export or import restrictions, new legislation or shifting approaches in the enforcement or scope of existing regulations, or in the countries, persons or technologies targeted by such regulations, could result in decreased use of our products by, or in our decreased ability to export our products to existing or potential customers with international operations. Any decreased use of our products or limitation on our ability to export or sell access to our products would likely negatively affect our business, financial condition and results of operations.

Risks Related to Government Regulation and Our Industry

Our products and operations are subject to extensive government regulation and oversight both in the United States and abroad. If we fail to obtain and maintain necessary regulatory approvals for the Zephyr Valve and related products, or if approvals for future products and indications are delayed or not issued, it will negatively affect our business, financial condition and results of operations.

The Zephyr Valve is subject to extensive regulation by the FDA in the United States and by our Notified Body in the European Union. Government regulations specific to medical devices are wide ranging and govern, among other things:

- product design, development, manufacture, and release;
- laboratory, pre-clinical and clinical testing, labeling, packaging, storage and distribution;
- product safety and efficacy;
- premarketing clearance or approval;
- service operations;

- record keeping;
- product marketing, promotion and advertising, sales and distribution;
- post-marketing surveillance, including reporting of deaths or serious injuries and recalls and correction and removals;
- post-market approval studies; and
- product import and export.

Before a new medical device or service, or a new intended use for an existing product or service, can be marketed in the United States, a company must first submit and receive either 510(k) clearance or PMA from the FDA, unless an exemption applies. In the 510(k) clearance process, before a device may be marketed, the FDA must determine that a proposed device is substantially equivalent to a legally-marketed predicate device, which includes a device that has been previously cleared through the 510(k) process, a device that was legally marketed prior to May 28, 1976 (pre-amendments device), a device that was originally on the U.S. market pursuant to an approved PMA and later down-classified, or a 510(k)-exempt device. To be substantially equivalent, the proposed device must have the same intended use as the predicate device, and either have the same technological characteristics as the predicate device or have different technological characteristics and not raise different questions of safety or effectiveness than the predicate device. Clinical data are sometimes required to support substantial equivalence.

In the process of obtaining PMA approval, which was required for the Zephyr Valve, the FDA must determine that a proposed device is safe and effective for its intended use based, in part, on extensive data, including, but not limited to, technical, pre-clinical, clinical trial, manufacturing and labeling data. The PMA process is typically required for devices that are deemed to pose the greatest risk, such as life-sustaining, life-supporting or implantable devices.

Either the 510(k) or PMA process can be expensive, lengthy and unpredictable. We may not be able to obtain any necessary clearances or approval or may be unduly delayed in doing so, which will negatively affect our business, financial condition and results of operations. Furthermore, even if we are granted regulatory clearances or approvals, they may include significant limitations on the indicated uses for the product, which may limit the market for the product. Although we have obtained PMA approval to market the Zephyr Valve, our approval can be revoked if safety or efficacy problems develop.

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

- our inability to demonstrate to the satisfaction of the FDA or the applicable regulatory entity or notified body that our products are safe or effective for their intended uses;
- the disagreement of the FDA or the applicable foreign regulatory body with the design or implementation of our clinical trials or the interpretation of data from pre-clinical studies or clinical trials;
- serious and unexpected adverse device effects experienced by participants in our clinical trials;
- the data from our pre-clinical studies and clinical trials may be insufficient to support clearance or approval, where required;
- our inability to demonstrate that the clinical and other benefits of the device outweigh the risks;
- the manufacturing process or facilities we use may not meet applicable requirements; and
- the potential for approval policies or regulations of the FDA or applicable foreign regulatory bodies to change significantly in a manner rendering our clinical data or regulatory filings insufficient for clearance or approval.

In order to sell our products in member countries of the European Economic Area (EEA), our products must comply with the essential requirements of the European Union Medical Devices Directive (Council Directive 93/42/EEC) (MDD) and the Active Implantable Medical Devices Directive (Council Directive 90/385/EEC). Compliance with these requirements is a prerequisite to be able to affix the Conformité Européene (CE) mark to our products, without which they cannot be sold or marketed in the EEA. To demonstrate compliance with the essential requirements we must undergo a conformity assessment procedure, which varies according to the type of medical device and its classification. Except for low-risk medical devices (Class I non-sterile, non-measuring devices), where the manufacturer can issue an European Commission Declaration of Conformity based on a self-assessment of the conformity of its products with the essential requirements of the MDD, a conformity assessment procedure requires the intervention by a Notified Body. Depending on the relevant conformity assessment procedure, the Notified Body would typically audit and examine the technical file and the quality system for the manufacture, design and final inspection of our devices. The Notified Body issues a certificate of conformity following successful completion of a conformity assessment procedure conducted in relation to the medical device and its manufacturer and their conformity with the essential requirements. This certificate entitles the manufacturer to affix the CE mark to its medical devices after having prepared and signed a related EC Declaration of Conformity. If we fail to remain in compliance with applicable European laws and directives, we would be unable to continue to affix the CE mark to our products, which would prevent us from selling them within the EEA.

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

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

If any of these events were to occur, it will negatively affect our business, financial condition and results of operations.

Changes in the regulatory environment may constrain or require us to restructure our operations, which may harm our revenue and operating results.

Healthcare laws and regulations change frequently and may change significantly in the future. We may not be able to adapt our operations to address every new regulation, and new regulations may negatively affect our business, financial condition and results of operations. We cannot assure you that a review of our business by courts or regulatory authorities would not result in a determination that adversely affects our revenue and operating results, or that the healthcare regulatory environment will not change in a way that restricts our operations. In addition, there is risk that the U.S. Congress may implement changes in laws and regulations governing healthcare service providers, including measures to control costs, or reductions in reimbursement levels, which may negatively affect our business, financial condition and results of operations.

The federal government is considering ways to change, and has changed, the manner in which healthcare services are paid for in the United States. CMS establishes Medicare payment levels for hospitals and physicians on an annual basis, which can increase or decrease payment to such entities. CMS, as well as insurers, have increased their efforts to control the cost, utilization and delivery of healthcare services. From time to time, the U.S. Congress has considered and implemented changes in the CMS fee schedules in conjunction with budgetary legislation. Further reductions of reimbursement by CMS for services or changes in policy regarding coverage of tests or other services provided or other requirements for payment, such as prior authorization or a physician's or qualified practitioner's signature on test/service requisitions, may be implemented from time to time. Individual states may also enact legislation that impacts Medicaid payments to hospitals and physicians. Reductions in the reimbursement rates and changes in payment policies of other third-party payors may occur as well. Similar changes in the past have resulted in reduced payments as well as added costs and have added more complex regulatory and administrative requirements. Further changes in federal, state, local and third-party payor regulations or policies may negatively affect our business, financial condition and results of operations. Actions by agencies regulating insurance or changes in other laws, regulations, or policies may also negatively affect our business, financial condition and results of operations.

On April 5, 2017, the European Parliament passed the Medical Devices Regulation (Regulation 2017/745), which repeals and replaces the MDD and the Active Implantable Medical Devices Directive. Unlike directives, which must be implemented into the national laws of the EEA member states, the regulations would be directly applicable, i.e., without the need for adoption of EEA member state laws implementing them, in all EEA member states and are intended to eliminate current differences in the regulation of medical devices among EEA member States. The Medical Devices Regulation, among other things, is intended to establish a uniform, transparent, predictable and sustainable regulatory framework across the EEA for medical devices and ensure a high level of safety and health while supporting innovation.

The Medical Devices Regulation will become applicable in 2021. Once applicable, the new regulations will among other things:

- strengthen the rules on placing devices on the market and reinforce surveillance once they are available;
- establish explicit provisions on manufacturers' responsibilities for the follow-up of the quality, performance and safety of devices placed on the market;
- improve the traceability of medical devices throughout the supply chain to the end-user or patient through a unique identification number;
- set up a central database to provide patients, healthcare professionals and the public with comprehensive information on products available in the European Union; and
- strengthen rules for the assessment of certain high-risk devices, such as implants, which may have to undergo an additional check by experts before they are placed on the market.

These modifications may have an effect on the way we conduct our business in the EEA.

Changes in funding for, or disruptions caused by global health concerns impacting, the FDA and other government agencies could hinder their ability to hire and retain key leadership and other personnel, or otherwise prevent new products and services from being developed, cleared or approved or commercialized in a timely manner, which could negatively impact our business.

The ability of the FDA to review and approve new products can be affected by a variety of factors, including government budget and funding levels, ability to hire and retain key personnel and accept the payment of user fees, statutory, regulatory, and policy changes and other events that may otherwise affect the FDA's ability to perform routine functions. Average review times at the agency have fluctuated in recent years as a result. In addition, government funding of other government agencies that fund research and development activities is subject to the political process, which is inherently fluid and unpredictable.

Disruptions at the FDA and other agencies may also slow the time necessary for new devices to be reviewed and/or approved or cleared by necessary government agencies, which would adversely affect our business. For example, over the last several years, including for 35 days beginning on December 22, 2018, the U.S. government has shut down several times and certain regulatory agencies, such as the FDA, have had to furlough critical FDA employees and stop critical activities. Separately, in response to the COVID-19 pandemic, on March 10, 2020, the FDA announced its intention to postpone inspections of foreign 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. Other regulatory authorities may adopt similar restrictions or other policy measures in response to the COVID-19 pandemic. If a prolonged government shutdown occurs, or if global health concerns continue to prevent the FDA or other regulatory authorities from conducting business as usual or conducting inspections, reviews or other regulatory activities, it could significantly impact the ability of the FDA to timely review and process our regulatory submissions, which could have a material adverse effect on our business.

A recall of our products, either voluntarily or at the direction of the FDA or another governmental authority, or the discovery of serious safety issues with our products that leads to corrective actions, could have a significant adverse impact on us.

The FDA and similar foreign governmental authorities have the authority to require the recall of commercialized products in the event of material deficiencies or defects in design or manufacture of a product or in the event that a product poses an unacceptable risk to health. The FDA's authority to require a recall must be based on an FDA finding that there is reasonable probability that the device would cause serious injury or death. Manufacturers may also, under their own initiative, recall a product if any material deficiency in a device is found or withdraw a product to improve device performance or for other reasons. The FDA requires that certain classifications of recalls be reported to the FDA within ten working days after the recall is initiated. A government-mandated or voluntary recall by us could occur as a result of an unacceptable risk to health, component failures, malfunctions, manufacturing errors, design or labeling defects or other deficiencies and issues. Similar regulatory agencies in other countries have similar authority to recall devices because of material deficiencies or defects in design or manufacture that could endanger health. Any recall would divert management attention and financial resources and could cause the price of our stock to decline, expose us to product liability or other claims and harm our reputation with customers. A future recall announcement will harm our reputation with customers and negatively affect our sales. In addition, the FDA or a foreign governmental authority could take enforcement action for failing to report the recalls when they were conducted.

In addition, under the FDA's medical device reporting regulations (MDRs), we are required to report to the FDA any incident in which our product may have caused or contributed to a death or serious injury or in which our product malfunctioned and, if the malfunction were to recur, would likely cause or contribute to death or serious injury. Repeated product malfunctions may result in a voluntary or involuntary product recall. We are also required to follow detailed recordkeeping requirements for all firm-initiated medical device corrections and removals, and to report such corrective and removal actions to FDA if they are carried out in response to a risk to health and have not otherwise been reported under the MDRs. Depending on the corrective action we take to redress a product's deficiencies or defects, the FDA may require, or we may decide, that we will need to obtain new approvals or clearances for the device before we may market or distribute the corrected device. Seeking such approvals or clearances may delay our ability to replace the recalled devices in a timely manner. Moreover, if we do not adequately address problems associated with our devices, we may face additional regulatory enforcement action, including FDA warning letters, product seizure, injunctions, administrative penalties, or civil or criminal fines. We may also be required to bear other costs or take other actions that may have a negative impact on our sales as well as face significant adverse publicity or regulatory consequences, which will negatively affect our business, financial condition and results of operations, including our ability to market our products in the future.

Any adverse event involving our products, whether in the United States or abroad, could result in future voluntary corrective actions, such as recalls or customer notifications, or agency action, such as inspection, mandatory recall or other enforcement action. Any corrective action, whether voluntary or involuntary, as well as defending ourselves in a lawsuit, will require the dedication of our time and capital, distract management from operating our business and may harm our reputation and financial results.

We are subject to certain federal, state and foreign fraud and abuse laws, health information privacy and security laws and transparency laws, which, if violated, could subject us to substantial penalties and negatively affect our business, financial condition and results of operations.

The products and services we offer are highly regulated, and there can be no assurance that the regulatory environment in which we operate will not change significantly and adversely in the future. Our arrangements with physicians, hospitals and clinics may expose us to broadly applicable fraud and abuse and other laws and regulations that may restrict the financial arrangements and relationships through which we market, sell and distribute our products and services. Federal and state healthcare laws and regulations that may affect our ability to conduct business, include, without limitation:

- federal and state laws and regulations regarding billing and claims payment applicable to our solution and regulatory agencies enforcing those laws and regulations;

- the federal Anti-Kickback Statute, which prohibits, among other things, any person from knowingly and willfully offering, soliciting, receiving or providing remuneration, directly or indirectly, in exchange for or to induce either the referral of an individual for, or the purchase, order or recommendation of, any good or service for which payment may be made under federal healthcare programs, such as Medicare and Medicaid;

- the federal false claims laws, including the False Claims Act, which prohibit, among other things, individuals or entities from knowingly presenting, or causing to be presented, false claims, or knowingly using false statements, to obtain payment from the federal government;

- federal criminal laws that prohibit executing a scheme to defraud any healthcare benefit program or making false statements relating to healthcare matters;

- the federal Physician Payments Sunshine Act (Open Payments), created under the Patient Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010 (collectively, the Affordable Care Act) and its implementing regulations, which requires certain manufacturers of drugs, medical devices, biologicals and medical supplies for which payment is available under Medicare, Medicaid, or the Children’s Health Insurance Program to report annually to CMS, information related to payments or other transfers of value made to licensed physicians and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members;

- federal consumer protection and unfair competition laws, which broadly regulate marketplace activities and activities that potentially harm consumers;

- the Health Insurance Portability and Accountability Act of 1996 (HIPAA), as amended by the Health Information Technology for Economic and Clinical Health Act (HITECH), and its implementing regulations, which impose certain requirements relating to the privacy, security and transmission of individually identifiable health information on covered entities, including certain healthcare providers, health plans and healthcare clearinghouses, and their respective business associates that create, receive, maintain or transmit individually identifiable health information for or on behalf of a covered entity; HIPAA also created criminal liability for knowingly and willfully falsifying or concealing a material fact or making a materially false statement in connection with the delivery of or payment for healthcare benefits, items or services;

- the Federal Drug & Cosmetic Act (FDCA), which prohibits, among other things, the adulteration or misbranding of drugs, biologics and medical devices;

- the federal physician self-referral prohibition, commonly known as the Stark Law;
- state law equivalents of each of the above federal laws, such as anti-kickback and false claims laws which may apply to items or services reimbursed by any third-party payor, including commercial insurers, and state and foreign laws governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts; and
- similar healthcare laws and regulations in the European Union and other jurisdictions, including reporting requirements detailing interactions with and payments to healthcare providers and laws governing the privacy and security of certain protected information, such as the General Data Protection Regulation (GDPR), which imposes obligations and restrictions on the collection and use of personal data relating to individuals located in the European Union (including health data).

The Affordable Care Act was enacted in 2010. The Affordable Care Act, among other things, amended the intent requirement of the federal Anti-Kickback Statute and criminal healthcare fraud statutes, including those created under HIPAA. A person or entity no longer needs to have actual knowledge of this statute or specific intent to violate it. In addition, the Affordable Care Act provides that the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the False Claims Act.

To enforce compliance with the healthcare regulatory laws, certain enforcement bodies have recently increased their scrutiny of interactions between healthcare companies and healthcare providers, which has led to a number of investigations, prosecutions, convictions and settlements in the healthcare industry. Responding to investigations can be time and resource-consuming and can divert management's attention from the business. Additionally, as a result of these investigations, healthcare providers and entities may have to agree to additional compliance and reporting requirements as part of a consent decree or corporate integrity agreement. Any such investigation or settlement could increase our costs or otherwise negatively affect our business, financial condition and results of operations. Even an unsuccessful challenge or investigation into our practices could cause adverse publicity and be costly to respond to.

Although we have adopted policies and procedures designed to comply with these laws and regulations and conduct internal reviews of our compliance with these laws, our activities, including those relating to the reporting of discount and rebate information and other information affecting federal, state and third-party reimbursement of our products (such as our patient reimbursement support program) and the sale and marketing of our products, may be subject to scrutiny by under these laws. Because of the breadth of these laws and the narrowness of available statutory exceptions and regulatory safe harbors, it is possible that some of our activities could be subject to challenge under one or more such laws. The growth of our business and sales organization and our expansion outside of the United States may increase the potential of violating these laws or our internal policies and procedures. Any action brought against us for violation of these or other laws or regulations, even if we successfully defend against it, could cause us to incur significant legal expenses and divert our management's attention from the operation of our business. If our operations are found to be in violation of any of the federal, state and foreign laws described above or any other current or future fraud and abuse or other healthcare laws and regulations that apply to us, we may be subject to significant penalties, including significant criminal, civil, and administrative penalties, damages, fines, imprisonment for individuals, exclusion from participation in government programs, such as Medicare and Medicaid, imprisonment, contractual damages, reputation harm and disgorgement and we could be required to curtail or cease our operations. Any of the foregoing consequences will negatively affect our business, financial condition and results of operations.

If we modify the Zephyr Valve, we may need to seek additional clearances or approvals, which, if not granted, would prevent us from selling our modified products.

In the United States, the Zephyr Valve is marketed pursuant to a PMA order issued by the FDA. Any modifications to a PMA-approved device that could significantly affect its safety or effectiveness, including significant design and manufacturing changes, or that would constitute a major change in its intended use, manufacture, design, components, or technology requires approval of a new PMA application or PMA supplement. However, certain changes to a PMA-approved device do not require submission and approval of a new PMA or PMA supplement and may only require notice to FDA in a PMA 30-Day Notice, Special PMA Supplement - Changes Being Effected or PMA Annual Report. The FDA requires every manufacturer to make this determination in the first instance, but the FDA may review any manufacturer's decision. The FDA may not agree with our decisions regarding whether new approvals are necessary. If the FDA disagrees with our determination and requires us to seek new PMA approvals for modifications to our previously approved products for which we have concluded that new approvals are unnecessary, we may be required to cease marketing or to recall the modified product until we obtain clearance or approval, and we may be subject to significant regulatory fines or penalties. Furthermore, our products could be subject to recall if the FDA determines, for any reason, that our products are not safe or effective or that appropriate regulatory submissions were not made. Delays in receipt or failure to receive approvals, the loss of previously received approvals, or the failure to comply with any other existing or future regulatory requirements, could reduce our sales, profitability and future growth prospects.

Failure to comply with post-marketing regulatory requirements could subject us to enforcement actions, including substantial penalties, and might require us to recall or withdraw a product from the market.

Even though we have obtained approval for the Zephyr Valve, we are subject to ongoing and pervasive regulatory requirements governing, among other things, the manufacture, marketing, advertising, medical device reporting, sale, promotion, registration, and listing of devices. For example, we must submit periodic reports to the FDA as a condition of PMA approval. These reports include safety and effectiveness information about the device after its approval. Failure to submit such reports, or failure to submit the reports in a timely manner, could result in enforcement action by the FDA. Following its review of the periodic reports, the FDA might ask for additional information or initiate further investigation.

In addition, the PMA approval for the Zephyr Valve was subject to several conditions of approval, including extended follow-up of the pre-market study cohort and post market study. Though we believe we have complied with these conditions to date, any failure to comply with the conditions of approval could result in the withdrawal of PMA approval and the inability to continue to market the device. Failure to conduct the required studies in accordance with Institutional Review Board (IRB) and informed consent requirements, or adverse findings in these studies, could also be grounds for withdrawal of approval of the PMA.

The regulations to which we are subject are complex and have become more stringent over time. Regulatory changes could result in restrictions on our ability to continue or expand our operations, higher than anticipated costs, or lower than anticipated sales. Even after we have obtained the proper regulatory approval to market a device, we have ongoing responsibilities under FDA regulations and applicable foreign laws and regulations. Our failure to comply with applicable regulatory requirements could result in enforcement action by the FDA, state or foreign regulatory authorities, which will negatively affect our business, financial condition and results of operations.

If treatment guidelines for severe emphysema or the standard of care evolves, we may need to redesign and seek new marketing authorization from the FDA for one or more of our products.

If treatment guidelines for severe emphysema changes or the standard of care for this condition evolves, we may need to redesign the applicable product and seek new approvals from the FDA. Our PMA approvals from the FDA are based on current treatment guidelines. If treatment guidelines change so that different treatments become desirable, the clinical utility of one or more of our products could be diminished and will negatively affect our business, financial condition and results of operations.

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

Our manufacturing and design processes and those of our third-party suppliers are required to comply with the FDA's QSR and the European Union Medical Devices Directive (Council Directive 93/42/EEC) (MDD), both of which cover procedures and documentation of the design, testing, production, control, quality assurance, labeling, packaging, storage and shipping of Zephyr Valves. We are also subject to similar state requirements and licenses, and to ongoing International Organization for Standardization (ISO) compliance in all operations, including design, manufacturing, and service, to maintain our CE Mark. In addition, we must engage in extensive recordkeeping and reporting and must make available our facilities and records for periodic unannounced inspections by governmental agencies, including the FDA, state authorities, European Union Notified Bodies and comparable agencies in other countries. If we fail a regulatory inspection, our operations could be disrupted and our manufacturing interrupted. Failure to take adequate corrective action in response to an adverse regulatory inspection could result in, among other things, a shutdown of our manufacturing or product distribution operations, significant fines, suspension of marketing clearances and approvals, seizures or recalls of our device, operating restrictions and criminal prosecutions, any of which would negatively affect our business, financial condition and results of operations. Furthermore, our key component suppliers may not currently be or may not continue to be in compliance with applicable regulatory requirements, which may result in manufacturing delays for our product and cause our revenue to decline.

We are registered with the FDA as a manufacturer. The FDA has broad post-market and regulatory enforcement powers. We are subject to unannounced inspections by the FDA and the Food and Drug Branch of the California Department of Public Health (CDPH) to determine our compliance with the QSR and other regulations at our manufacturing facility, and these inspections may include the manufacturing facilities of our suppliers. Our design facilities in Redwood City, California were most recently audited by the FDA in November 2016 and no observations resulting in a warning letter were identified. We believe that we are in compliance, in all material respects, with the QSR.

We also maintain a certificate of registration for the design, manufacture, service, and distribution of our product from British Standards Institution (BSI) in the Netherlands, our European Notified Body. Most recently, BSI completed an ISO 13485 surveillance audit of our design, manufacturing and service operations in April 2020 and we believe that we are in compliance, in all material respects, with the MDD.

We can provide no assurance that we will continue to remain in compliance with the QSR or MDD. If the FDA, CDPH or BSI inspect any of our facilities and discover compliance problems, we may have to cease manufacturing and product distribution until we can take the appropriate remedial steps to correct the audit findings. Taking corrective action may be expensive, time consuming and a distraction for management and if we experience a delay at our manufacturing facility, we may be unable to produce our solutions, which will negatively affect our business, financial condition and results of operations.

The misuse or off-label use of our solution will harm our image in the marketplace, result in injuries that lead to product liability suits or result in costly investigations and sanctions by regulatory bodies if we are deemed to have engaged in the promotion of these uses, any of which will negatively affect our business, financial condition and results of operations.

Our solution has been approved by the FDA for specific indications. We train our marketing and direct sales force to not promote our products for uses outside of the FDA-approved indications for use, known as “off-label” uses. We cannot, however, prevent a physician from using our products off-label, when in the physician’s independent professional medical judgment, he or she deems it appropriate. There may be increased risk of injury to patients if physicians attempt to use our products off-label. Furthermore, the use of our products for indications other than those approved by the FDA or any foreign regulatory body may not effectively treat such conditions, which will harm our reputation in the marketplace among physicians and patients.

Physicians may also misuse our products or use improper techniques if they are not adequately trained, potentially leading to injury and an increased risk of product liability. If our products are misused or used with improper technique, we may become subject to costly litigation by our customers or their patients. Product liability claims could divert management’s attention from our core business, be expensive to defend, and result in sizable damage awards against us that may not be covered by insurance. In addition, if the FDA or any foreign regulatory body determines that our promotional materials or training constitute promotion of an off-label use, it could request that we modify our training or promotional materials or subject us to regulatory or enforcement actions, including the issuance of an untitled letter, a warning letter, injunction, seizure, civil fine or criminal penalties. It is also possible that other federal, state or foreign enforcement authorities might take action if they consider our business activities to constitute promotion of an off-label use, which could result in significant penalties, including, but not limited to, criminal, civil and administrative penalties, damages, fines, disgorgement, exclusion from participation in government healthcare programs, and the curtailment of our operations. Any of these events will negatively affect our business, financial condition and results of operations and cause our stock price to decline.

We may be subject to regulatory or enforcement actions if we engage in improper marketing or promotion of our products.

Our educational and promotional activities and training methods must comply with FDA and other applicable laws, including the prohibition of the promotion of a medical device for a use that has not been cleared or approved by the FDA. Use of a device outside of its cleared or approved indications is known as “off-label” use. Physicians may use our products off-label in their professional medical judgment, as the FDA does not restrict or regulate a physician’s choice of treatment within the practice of medicine. However, if the FDA determines that our educational and promotional activities or training constitutes promotion of an off-label use, it could request that we modify our training or promotional materials or subject us to regulatory or enforcement actions, including the issuance of warning letters, untitled letters, fines, penalties, injunctions, or seizures, which could have an adverse impact on our reputation and financial results. It is also possible that other federal, state or foreign enforcement authorities might take action if they consider our educational and promotional activities or training methods to constitute promotion of an off-label use, which could result in significant fines or penalties under other statutory authorities, such as laws prohibiting false claims for reimbursement. In that event, our reputation could be damaged, and adoption of the products could be impaired. Although our policy is to refrain from statements that could be considered off-label promotion of our products, the FDA or another regulatory agency could disagree and conclude that we have engaged in off-label promotion. It is also possible that other federal, state or foreign enforcement authorities might take action, such as federal prosecution under the federal civil False Claims Act, if they consider our business activities constitute promotion of an off-label use, which could result in significant penalties, including, but not limited to, criminal, civil or administrative penalties, damages, fines, disgorgement, exclusion from participation in government healthcare programs, additional reporting requirements and oversight if we become subject to a corporate integrity agreement or similar agreement to resolve allegations of non-compliance with these laws, and the curtailment or restructuring of our operations. In addition, the off-label use of our products may increase the risk of product liability claims. Product liability claims are expensive to defend and could divert our management’s attention, result in substantial damage awards against us, and harm our reputation.

The clinical trial process required to obtain regulatory approvals is lengthy and expensive with uncertain outcomes. If clinical studies of our future products do not produce results necessary to support regulatory clearance or approval in the United States or, with respect to our current or future products, elsewhere, we will be unable to expand the indications for or commercialize these products and may incur additional costs or experience delays in completing, or ultimately be unable to complete, the commercialization of those products.

We have obtained PMA approval for the Zephyr Valve. In order to obtain PMA approval for a device, the sponsor must conduct well-controlled clinical trials designed to assess the safety and efficacy of the product candidate. Conducting clinical trials is a complex and expensive process, can take many years, and outcomes are inherently uncertain. We incur substantial expense for, and devote significant time to, clinical trials but cannot be certain that the trials will ever result in commercial revenue. We may experience significant setbacks in clinical trials, even after earlier clinical trials showed promising results, and failure can occur at any time during the clinical trial process. Any of our products may malfunction or may produce undesirable adverse effects that could cause us or regulatory authorities to interrupt, delay or halt clinical trials. We, the FDA, or another regulatory authority may suspend or terminate clinical trials at any time to avoid exposing trial participants to unacceptable health risks.

Successful results of pre-clinical studies are not necessarily indicative of future clinical trial results, and predecessor clinical trial results may not be replicated in subsequent clinical trials. Additionally, the FDA may disagree with our interpretation of the data from our pre-clinical studies and clinical trials, or may find the clinical trial design, conduct or results inadequate to prove safety or efficacy, and may require us to pursue additional pre-clinical studies or clinical trials, which could further delay the clearance or approval of our products. The data we collect from our pre-clinical studies and clinical trials may not be sufficient to support FDA clearance or approval, and if we are unable to demonstrate the safety and efficacy of our future products in our clinical trials, we will be unable to obtain regulatory clearance or approval to market our products.

In addition, we may estimate and publicly announce the anticipated timing of the accomplishment of various clinical, regulatory and other product development goals, which are often referred to as milestones. These milestones could include the obtainment of the right to affix the CE mark in the European Union; the submission to the FDA of an Investigational Device Exemption (IDE) application to commence a pivotal clinical trial for a new product candidate; the enrollment of patients in clinical trials; the release of data from clinical trials; and other clinical and regulatory events. The actual timing of these milestones could vary dramatically compared to our estimates, in some cases for reasons beyond our control. We cannot assure you that we will meet our projected milestones and if we do not meet these milestones as publicly announced, the commercialization of our products may be delayed and, as a result, our stock price may decline.

Clinical trials are necessary to support PMA applications and may be necessary to support PMA supplements for modified versions of our marketed device products. This would require the enrollment of large numbers of suitable subjects, which may be difficult to identify, recruit and maintain as participants in the clinical trial. Adverse outcomes in the post-approval studies could also result in restrictions or withdrawal of approval of the PMA. We will likely need to conduct additional clinical studies in the future to support new indications for our products or for approvals or clearances of new product lines, or for the approval of the use of our products in some foreign countries. Clinical testing is difficult to design and implement, can take many years, can be expensive and carries uncertain outcomes. The initiation and completion of any of these studies may be prevented, delayed, or halted for numerous reasons. We may experience a number of events that could adversely affect the costs, timing or successful completion of our clinical trials, including:

- we may be required to submit an IDE application to the FDA, which must become effective prior to commencing human clinical trials, and the FDA may reject our IDE application and notify us that we may not begin investigational trials;
- regulators and other comparable foreign regulatory authorities may disagree as to the design or implementation of our clinical trials;
- regulators, IRBs or other reviewing bodies may not authorize us or our investigators to commence a clinical trial, or to conduct or continue a clinical trial at a prospective or specific trial site;
- we may not reach agreement on acceptable terms with prospective contract research organizations (CROs) and clinical trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;
- clinical trials may produce negative or inconclusive results, and we may decide, or regulators may require us, to conduct additional clinical trials or abandon product development programs;
- the number of subjects or patients required for clinical trials may be larger than we anticipate, enrollment in these clinical trials may be insufficient or slower than we anticipate, and the number of clinical trials being conducted at any given time may be high and result in fewer available patients for any given clinical trial, or patients may drop out of these clinical trials at a higher rate than we anticipate;
- our third-party contractors, including those manufacturing products or conducting clinical trials on our behalf, may fail to comply with regulatory requirements or meet their contractual obligations to us in a timely manner, or at all;

- we might have to suspend or terminate clinical trials for various reasons, including a finding that the subjects are being exposed to unacceptable health risks;
- we may have to amend clinical trial protocols or conduct additional studies to reflect changes in regulatory requirements or guidance, which we may be required to submit to an IRB or regulatory authority for re-examination;
- regulators, IRBs, or other parties may require or recommend that we or our investigators suspend or terminate clinical research for various reasons, including safety signals or noncompliance with regulatory requirements;
- the cost of clinical trials may be greater than we anticipate;
- clinical sites may not adhere to the clinical protocol or may drop out of a clinical trial;
- we may be unable to recruit a sufficient number of clinical trial sites;
- regulators, IRBs, or other reviewing bodies may fail to approve or subsequently find fault with our manufacturing processes or facilities of third-party supplier with which we enter into agreement for clinical and commercial supplies, the supply of devices or other materials necessary to conduct clinical trials may be insufficient, inadequate or not available at an acceptable cost, or we may experience interruptions in supply;
- approval policies or regulations of the FDA or applicable foreign regulatory agencies may change in a manner rendering our clinical data insufficient for approval; and
- our current or future products may have undesirable side effects or other unexpected characteristics.

Patient enrollment in clinical trials and completion of patient follow-up depend on many factors, including the size of the patient population, the nature of the trial protocol, the proximity of patients to clinical sites, the eligibility criteria for the clinical trial, patient compliance, competing clinical trials and clinicians’ and patients’ perceptions as to the potential advantages of the product being studied in relation to other available therapies, including any new treatments that may be approved for the indications we are investigating. For example, patients may be discouraged from enrolling in our clinical trials if the trial protocol requires them to undergo extensive post-treatment procedures or follow-up to assess the safety and efficacy of a product candidate, or they may be persuaded to participate in contemporaneous clinical trials of a competitor’s product candidate or provider’s competing clinical trial. In addition, patients participating in our clinical trials may drop out before completion of the trial or experience adverse medical events unrelated to our products. Delays in patient enrollment or failure of patients to continue to participate in a clinical trial may delay commencement or completion of the clinical trial, cause an increase in the costs of the clinical trial and delays, or result in the failure of the clinical trial.

Clinical trials must be conducted in accordance with the laws and regulations of the FDA and other applicable regulatory authorities’ legal requirements, regulations or guidelines, and are subject to oversight by these governmental agencies and IRBs at the medical institutions where the clinical trials are conducted. In addition, clinical trials must be conducted with supplies of our devices produced under current good manufacturing practice, or Current Good Manufacturing Practices, requirements and other regulations. Furthermore, we may rely on CROs, and clinical trial sites to ensure the proper and timely conduct of our clinical trials and we may have limited influence over their actual performance. We depend on our collaborators and on medical institutions and CROs to conduct our clinical trials in compliance with good clinical practice, or GCP, requirements. To the extent our collaborators or the CROs fail to enroll participants for our clinical trials, fail to conduct the study to GCP standards or are delayed for a significant time in the execution of trials, including achieving full enrollment, we may be affected by increased costs, program delays or both. In addition, clinical trials that are conducted in countries outside the United States may subject us to further delays and expenses as a result of increased shipment costs, additional regulatory requirements and the engagement of non-U.S. CROs, as well as expose us to risks associated with clinical investigators who are unknown to the FDA, and different standards of diagnosis, screening and medical care.

Even if our future products are cleared or approved in the United States, commercialization of our products in foreign countries would require clearance or approval by regulatory authorities in those countries. Clearance or approval procedures vary among jurisdictions and can involve requirements and administrative review periods different from, and greater than, those in the United States, including additional preclinical studies or clinical trials. Any of these occurrences could have an adverse effect on our business, financial condition and results of operations.

Our products may cause or contribute to adverse medical events or be subject to failures or malfunctions that we are required to report to the FDA, and if we fail to do so, we would be subject to sanctions that could negatively affect our business, financial condition and results of operations.

We are required to file various reports with the FDA and European regulators, including reports required by the MDRs that require that we report to the regulatory authorities if our solutions may have caused or contributed to a death or serious injury or malfunctioned in a way that would likely cause or contribute to a death or serious injury if the malfunction were to recur and we have filed such reports in the past. The timing of our obligation to report is triggered by the date we become aware of the adverse event as well as the nature of the event. We may fail to report adverse events of which we become aware within the prescribed timeframe. We may also fail to recognize that we have become aware of a reportable adverse event, especially if it is not reported to us as an adverse event or if it is an adverse event that is unexpected or removed in time from the use of the product. If these reports are not filed in a timely manner, regulators may impose sanctions and we may be subject to product liability or regulatory enforcement actions, all of which will negatively affect our business, financial condition and results of operations.

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

If we assess a potential quality issue or complaint as not requiring either field action or notification, respectively, regulators may review documentation of that decision during a subsequent audit. If regulators disagree with our decision, or take issue with either our investigation process or the resulting documentation, regulatory agencies may impose sanctions and we may be subject to regulatory enforcement actions, including warning letters, all of which will negatively affect our business, financial condition and results of operations.

If we do not obtain and maintain international regulatory registrations or approvals for our products, we will be unable to market and sell our products outside of the United States.

Sales of our products outside of the United States are subject to foreign regulatory requirements that vary widely from country to country. In addition, the FDA regulates exports of medical devices from the United States. While the regulations of some countries may not impose barriers to marketing and selling our products or only require notification, others require that we obtain the approval of a specified regulatory body. Complying with foreign regulatory requirements, including obtaining registrations or approvals, can be expensive and time-consuming, and we may not receive regulatory approvals in each country in which we plan to market our products, or we may be unable to do so on a timely basis. The time required to obtain registrations or approvals, if required by other countries, may be longer than that required for FDA approval, and requirements for such registrations, clearances or approvals may significantly differ from FDA requirements. If we modify our products, we may need to apply for additional regulatory approvals before we are permitted to sell the modified product. In addition, we may not continue to meet the quality and safety standards required to maintain the authorizations that we have received. If we are unable to maintain our authorizations in a particular country, we will no longer be able to sell the applicable product in that country.

Regulatory approval by the FDA does not ensure registration, clearance or approval by regulatory authorities in other countries, and registration, clearance or approval by one or more foreign regulatory authorities does not ensure registration, clearance or approval by regulatory authorities in other foreign countries or by the FDA. However, a failure or delay in obtaining registration or regulatory clearance or approval in one country may have a negative effect on the regulatory process in others.

Healthcare reform measures could hinder or prevent the commercial success of our solutions.

In the United States, there have been, and we expect there will continue to be, a number of legislative and regulatory changes to the healthcare system in ways that will harm our future revenues and profitability and the demand for our solutions. Federal and state lawmakers regularly propose and, at times, enact legislation that would result in significant changes to the healthcare system, some of which are intended to contain or reduce the costs of medical products and services. Current and future legislative proposals to further reform healthcare or reduce healthcare costs may limit coverage of or lower reimbursement for the procedures associated with the use of our products. The cost containment measures that payers and providers are instituting and the effect of any healthcare reform initiative implemented in the future could impact our revenue from the sale of our products. For example, the Affordable Care Act contains a number of provisions, including those governing enrollment in federal healthcare programs, reimbursement changes and fraud and abuse measures, all of which will impact existing government healthcare programs and will result in the development of new programs. The Affordable Care Act, among other things, imposed an excise tax of 2.3% on the sale of most medical devices, including ours, and any failure to pay this amount could result in the imposition of an injunction on the sale of our products, fines and penalties. However, the 2020 federal spending package permanently eliminated this medical device excise tax effective January 1, 2020.

There remain judicial and Congressional challenges to certain aspects of the Affordable Care Act, as well as efforts by the Trump administration to repeal or replace certain aspects of the Affordable Care Act. Since January 2017, President Trump has signed several Executive Orders and other directives designed to delay the implementation of certain provisions of the Affordable Care Act. Concurrently, Congress has considered legislation that would repeal or repeal and replace all or part of the Affordable Care Act. While Congress has not passed comprehensive repeal legislation, it has enacted laws that modify certain provisions of the Affordable Care Act such as removing penalties, starting January 1, 2019, for not complying with the Affordable Care Act's individual mandate to carry health insurance and delaying the implementation of certain fees mandated by the Affordable Care Act. On December 14, 2018, a Texas U.S. District Court Judge ruled that the Affordable Care Act is unconstitutional in its entirety because the individual mandate was repealed by Congress as part of the Tax Cuts and Jobs Act of 2017. Additionally, on December 18, 2019, the U.S. Court of Appeals for the 5th Circuit upheld the District Court ruling that the individual mandate was unconstitutional and remanded the case back to the District Court to determine whether the remaining provisions of the Affordable Care Act are invalid as well. On March 2, 2020, the United States Supreme Court granted the petitions for writs of certiorari to review this case, and has allotted one hour for oral arguments, which are expected to occur in the fall. It is unclear how such litigation and other efforts to repeal and replace the Affordable Care Act will impact the Affordable Care Act and negatively affect our business, financial condition and results of operations.

In addition, other legislative changes have been proposed and adopted since the Affordable Care Act was enacted. For example, the Budget Control Act of 2011, among other things, included reductions to CMS payments to providers of 2% per fiscal year, which went into effect on April 1, 2013 and, due to subsequent legislative amendments to the statute, will remain in effect through 2030 unless additional Congressional action is taken. The Coronavirus Aid, Relief and Economic Security Act, or CARES Act, which was signed into law in March 2020 and is designed to provide financial support and resources to individuals and businesses affected by the COVID-19 pandemic, suspended the 2% Medicare sequester from May 1, 2020 through December 31, 2020, and extended the sequester by one year, through 2030. Additionally, the American Taxpayer Relief Act of 2012, among other things, reduced CMS payments to several providers, including hospitals, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years.

The current presidential administration and Congress may continue to pursue significant changes to the current healthcare laws. We face uncertainties that might result from modifications or repeal of any of the provisions of the

Affordable Care Act, including as a result of current and future executive orders and legislative actions. The impact of those changes on us and potential effect on the medical device industry as a whole is currently unknown. Any changes to the Affordable Care Act are likely to have an impact on our results of operations, and may negatively affect our business, financial condition and results of operations. We cannot predict what other healthcare programs and regulations will ultimately be implemented at the federal or state level or the effect of any future legislation or regulation in the United States may negatively affect our business, financial condition and results of operations.

The continuing efforts of the government, insurance companies, managed care organizations and other payors of healthcare services to contain or reduce costs of healthcare will harm:

- our ability to set a price that we believe is fair for the Zephyr Valve;
- our ability to generate revenue and achieve or maintain profitability; and
- the availability of capital.

Changes in healthcare policy could increase our costs and subject us to additional regulatory requirements that may interrupt commercialization of our current and future solutions. Changes in healthcare policy could increase our costs, decrease our revenue and impact sales of and reimbursement for our current and future products. Further, it is possible that additional governmental action is taken in response to the COVID-19 pandemic. For example, the Trump administration issued an executive order on August 3, 2020 directing CMS to propose a regulation extending Medicare coverage for certain telemedicine services provided to certain Medicare beneficiaries beyond the duration of the COVID-19 pandemic. CMS is required to propose the regulation within sixty (60) days of the issuance of the executive order.

Legal, political and economic uncertainty surrounding the exit of the United Kingdom from the European Union may be a source of instability in international markets, create significant currency fluctuations, adversely affect our operations in the United Kingdom and pose additional risks to our business, financial condition and results of operations.

Following the result of a referendum in 2016, the United Kingdom left the European Union on January 31, 2020, commonly referred to as Brexit. Pursuant to the formal withdrawal arrangements agreed between the United Kingdom and the European Union, the United Kingdom will be subject to a transition period until December 31, 2020 (Transition Period), during which European Union rules will continue to apply. Negotiations between the United Kingdom and the European Union are expected to continue in relation to the customs and trading relationship between the United Kingdom and the European Union following the expiry of the Transition Period.

Lack of clarity about future U.K. laws and regulations as the United Kingdom determines which European Union rules and regulations to replace or replicate, including financial laws and regulations, tax and free trade agreements, intellectual property rights, supply chain logistics, environmental, health and safety laws and regulations, immigration laws and employment laws, could decrease foreign direct investment in the United Kingdom, increase costs, depress economic activity and restrict access to capital. Possible changes to the rules and regulations relating to quality, safety and efficacy of products, clinical trials, marketing authorization, commercial sales and distribution of products could materially impact the regulatory regime with respect to products and approval of any product candidates in the United Kingdom or the European Union and we may be forced to restrict or delay efforts to sell our products or seek regulatory approval of product candidates in the United Kingdom and/or the European Union, which could negatively affect our business, financial condition and results of operations. The long-term effects of Brexit will depend on any agreements (or lack thereof) between the United Kingdom and the European Union and, in particular, any arrangements for the United Kingdom to retain access to European Union markets following the expiry of the Transition Period.

We are subject to governmental regulation and other legal and contractual obligations, particularly related to privacy, data protection and information security, and we are subject to consumer protection laws that regulate our consumer-facing practices and prohibit unfair or deceptive acts or practices. Our actual or perceived failure to comply with such obligations could harm our business.

We are subject to diverse laws and regulations relating to data privacy and security, including, in the United States, HIPAA and, in the European Union and the EEA, the General Data Protection Regulation (GDPR). New privacy rules are being enacted in the United States and globally, and existing ones are being updated and strengthened. For example, the California Consumer Privacy Act (CCPA) took effect on January 1, 2020 and creates individual privacy rights for California consumers and increases the privacy and security obligations of entities handling certain personal information.

The CCPA provides for civil penalties for violations, as well as a private right of action for data breaches that is expected to increase data breach litigation. Complying with these numerous, complex and often changing regulations is expensive and difficult, and failure to comply with any privacy laws or data security laws or any security incident or breach involving the misappropriation, loss or other unauthorized use or disclosure of sensitive or confidential patient or consumer information, whether by us, one of our business associates or another third-party, could negatively affect our business, financial condition and results of operations, including but not limited to: investigation costs, material fines and penalties; compensatory, special, punitive and statutory damages; litigation; consent orders regarding our privacy and security practices; requirements that we provide notices, credit monitoring services or credit restoration services or other relevant services to impacted individuals; adverse actions against our licenses to do business; and injunctive relief.

The privacy laws in the European Union have also been significantly reformed. On May 25, 2018, the GDPR entered into force and became directly applicable in all European Union member states. The GDPR implements more stringent operational requirements than its predecessor legislation. For example, the GDPR requires us to make more detailed disclosures to data subjects, requires disclosure of the legal basis on which we can process personal data, makes it harder for us to obtain valid consent for processing, require the appointment of data protection officers when sensitive personal data, such as health data, is processed on a large scale, provides more robust rights for data subjects, introduces mandatory data breach notification through the European Union, imposes additional obligations on us when contracting with service providers and requires us to adopt appropriate privacy governance including policies, procedures, training and data audit. If we do not comply with our obligations under the GDPR, we could be exposed to fines of up to the greater of €20 million or up to 4% of our total global annual revenue in the event of a significant breach. In addition, we may be the subject of litigation or adverse publicity, which could negatively affect our business, financial condition and results of operations.

Although there are legal mechanisms to allow for the transfer of personal data from the United Kingdom, EEA and Switzerland to the United States, uncertainty about compliance with such data protection laws remains and such mechanisms may not be available or applicable with respect to the personal data processing activities necessary to research, develop and market our products and services. For example, legal challenges in Europe to the mechanisms allowing companies to transfer personal data from the EEA to the United States could result in further limitations on the ability to transfer personal data across borders, particularly if governments are unable or unwilling to reach new or maintain existing agreements that support cross-border data transfers, such as the EU-U.S. and Swiss-U.S. Privacy Shield Frameworks, or the Privacy Shield Frameworks. Specifically, on July 16, 2020, the Court of Justice of the European Union invalidated Decision 2016/1250 which had deemed the protection provided by the EU-U.S. Privacy Shield Framework adequate under EU privacy law, specifically under the GDPR. To the extent that we or any of our vendors, contractors, or consultants have been relying on the EU-U.S. Privacy Shield Framework, we will not be able to do so in the future, which could increase our costs and may limit our ability to process personal data from the EU. The same decision also cast doubt on the ability to use one of the primary alternatives to the Privacy Shield Frameworks, namely, the European Commission's Standard Contractual Clauses, to lawfully transfer personal data from Europe to the United States and most other countries. At present, there are few if any viable alternatives to the Privacy Shield Frameworks and the Standard Contractual Clauses for the foregoing purposes.

Further, Brexit has created uncertainty with regard to data protection regulation in the United Kingdom. In particular, while the Data Protection Act of 2018, that implements and complements the GDPR achieved Royal Assent on May 23, 2018 and is now effective in the United Kingdom, it is still unclear whether transfer of data from the EEA to the United Kingdom will remain lawful under the GDPR. During the period of “transition” (i.e., until December 31, 2020), EU law will continue to apply in the United Kingdom, including the GDPR, after which the GDPR will be converted into UK law. Beginning in 2021, the United Kingdom will be a “third country” under the GDPR. We may, however, incur liabilities, expenses, costs, and other operational losses under the GDPR and privacy laws of the applicable EU Member States and the United Kingdom in connection with any measures we take to comply with them.

We cannot assure you that our third-party service providers with access to our or our customers’, suppliers’, trial patients’ and employees’ personally identifiable and other sensitive or confidential information in relation to which we are responsible will not breach contractual obligations imposed by us, or that they will not experience data security breaches or attempts thereof, which could have a corresponding effect on our business, including putting us in breach of our obligations under privacy laws and regulations, which could in turn adversely affect our business, results of operations and financial condition. We cannot assure you that our contractual measures and our own privacy and security-related safeguards will protect us from the risks associated with the third-party processing, storage and transmission of such information. Increasing use of social media could also give rise to liability, breaches of data security or reputational damage.

Moreover, complying with the various cybersecurity or privacy laws that are applicable to us could require us to take on more onerous obligations in our contracts, restrict our ability to collect, use and disclose data, or in some cases, impact our ability to operate in certain jurisdictions. Any failure to comply could result in government enforcement actions (which could include civil or criminal penalties), private litigation and/or adverse publicity and could negatively affect our operating results and business. Claims that we have violated individuals’ privacy rights, failed to comply with data protection laws, or breached our contractual obligations, even if we are not found liable, could be expensive and time consuming to defend, could result in adverse publicity and could have a material adverse effect on our business, financial condition, and results of operations.

We face potential liability related to the privacy of health information we obtain.

Most healthcare providers, including hospitals from which we obtain patient health information, are subject to privacy and security regulations promulgated under HIPAA, as amended by the HITECH. We are not currently classified as a covered entity or business associate under HIPAA and thus are not subject to its requirements or penalties. However, any person may be prosecuted under HIPAA’s criminal provisions either directly or under aiding-and-abetting or conspiracy principles. Consequently, depending on the facts and circumstances, we could face substantial criminal penalties if we knowingly receive individually identifiable health information from a HIPAA-covered healthcare provider or research institution that has not satisfied HIPAA’s requirements for disclosure of individually identifiable health information. In addition, we may maintain sensitive personally identifiable information, including health information, that we receive throughout the clinical trial process, in the course of our research collaborations, and directly from individuals (or their healthcare providers) who enroll in our patient reimbursement support programs. As such, we may be subject to state laws requiring notification of affected individuals and state regulators in the event of a breach of personal information, which is a broader class of information than the health information protected by HIPAA. Our clinical trial programs outside the United States may implicate international data protection laws, including the European Union Data Protection Directive and legislation of the European Union member states implementing it.

Our activities outside the United States impose additional compliance requirements and generate additional risks of enforcement for noncompliance. Failure by third-party contractors to comply with the strict rules on the transfer of personal data outside of the European Union into the United States may result in the imposition of criminal and administrative sanctions on such collaborators, which could adversely affect our business. Furthermore, certain health privacy laws, data breach notification laws, consumer protection laws and genetic testing laws may apply directly to our operations or those of our collaborators and may impose restrictions on our collection, use and dissemination of individuals’ health information.

Moreover, patients about whom we or our collaborators obtain health information, as well as the providers who share this information with us, may have statutory or contractual rights that limit our ability to use and disclose the information. We may be required to expend significant capital and other resources to ensure ongoing compliance with applicable privacy and data security laws. Claims that we have violated individuals' privacy rights or breached our contractual obligations, even if we are not found liable, could be expensive and time consuming to defend and could result in adverse publicity that could negatively affect our business, financial condition and results of operations. If we or third-party contractors or consultants fail to comply with applicable federal, state or local regulatory requirements, we could be subject to a range of regulatory actions that could affect our or our contractors' ability to develop and commercialize our product candidates and could harm or prevent sales of any affected products that we are able to commercialize, or could substantially increase the costs and expenses of developing, commercializing and marketing our products. Any threatened or actual government enforcement action could also generate adverse publicity and require that we devote substantial resources that could otherwise be used in other aspects of our business.

Our employees, consultants, and other commercial partners may engage in misconduct or other improper activities, including non-compliance with regulatory standards and requirements.

We are exposed to the risk that our employees, consultants, and other commercial partners and business associates may engage in fraudulent or illegal activity. Misconduct by these parties could include intentional, reckless or negligent conduct or other unauthorized activities that violate the regulations of the FDA and non-U.S. regulators, including those laws requiring the reporting of true, complete and accurate information to such regulators, manufacturing standards, healthcare fraud and abuse laws and regulations in the United States and internationally or laws that require the true, complete and accurate reporting of financial information or data. In particular, sales, marketing and business arrangements in the healthcare industry, including the sale of medical devices, are subject to extensive laws and regulations intended to prevent fraud, misconduct, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs and other business arrangements. It is not always possible to identify and deter misconduct by our employees, consultants and other third parties, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to comply with these laws or regulations. If any such actions are instituted against us and we are not successful in defending ourselves or asserting our rights, those actions could result in the imposition of significant fines or other sanctions, including the imposition of civil, criminal and administrative penalties, damages, monetary fines, possible exclusion from participation in Medicare, Medicaid and other federal healthcare programs, contractual damages, reputational harm, diminished profits and future earnings, and curtailment of operations, any of which could adversely affect our ability to operate our business and our results of operations. Whether or not we are successful in defending against such actions or investigations, we could incur substantial costs, including legal fees and reputational harm, and divert the attention of management in defending ourselves against any of these claims or investigations.

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

Our research, development and manufacturing operations involve the use of hazardous substances, and we are subject to a variety of federal, state, local and foreign environmental laws and regulations relating to the storage, use, handling, generation, manufacture, treatment, discharge and disposal of hazardous substances. Our products may also contain hazardous substances, and they are subject laws and regulations relating to labeling requirements and to their sale, collection, recycling, treatment, storage and disposal. Compliance with these laws and regulations may be expensive and noncompliance could result in substantial fines and penalties. Environmental laws and regulations also impose liability for the remediation of releases of hazardous substances into the environment and for personal injuries resulting from exposure to hazardous substances, and they can give rise to substantial remediation costs and to third-party claims, including for property damage and personal injury. Liability under environmental laws and regulations can be joint and several and without regard to fault or negligence, and they tend to become more stringent over time, imposing greater compliance costs and increased risks and penalties associated with violations. We cannot assure you that violations of these laws and regulations, or releases of or exposure to hazardous substances, will not occur in the future or have not occurred in the past, including as a result of human error, accidents, equipment failure or other causes. The costs of complying with environmental laws and regulations, and liabilities that may be imposed for violating them, or for remediation obligations or responding to third-party claims, could negatively affect our business, financial condition and results of operations.

Risks Related to Our Intellectual Property

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

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

Since patent applications are confidential for a period of time after filing, we cannot be certain that we were the first to file any patent application related to our products. Competitors may also contest our patents, if issued, by showing the patent examiner that the invention was not original, was not novel or was obvious. In litigation, a competitor could claim that our patents, if issued, are not valid for a number of reasons. If a court agrees, we would lose our rights to those challenged patents. Because we have not conducted a formal freedom to operate analysis for patents related to our products, we may not be aware of issued patents that a third party might assert are infringed by one of our current products or future product candidates, which could materially impair our ability to commercialize our products or product candidates. Even if we diligently search third-party patents for potential infringement by our products or product candidates, we may not successfully find patents that our products or product candidates may infringe. If we are unable to secure and maintain freedom to operate, others could preclude us from commercializing our products or product candidates.

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

Any lawsuits relating to intellectual property rights could subject us to significant liability for damages and invalidate our proprietary rights. Any potential intellectual property litigation also could force us to do one or more of the following:

- stop making, selling or using products or technologies that allegedly infringe the asserted intellectual property;
- lose the opportunity to license our intellectual property to others or to collect royalty payments based upon successful protection and assertion of our intellectual property rights against others; incur significant legal expenses;
- pay substantial damages or royalties to the party whose intellectual property rights we may be found to be infringing;
- pay the attorney's fees and costs of litigation to the party whose intellectual property rights we may be found to be infringing;
- redesign those products or technologies that contain the allegedly infringing intellectual property, which could be costly, disruptive and infeasible; and
- attempt to obtain a license to the relevant intellectual property from third parties, which may not be available on reasonable terms or at all, or from third parties who may attempt to license rights that they do not have.

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

Any litigation or claim against us, even those without merit and even those where we prevail, may cause us to incur substantial costs, and could place a significant strain on our financial resources, divert the attention of management from our core business and harm our reputation. If we are found to infringe the intellectual property rights of third parties, we could be required to pay substantial damages (which may be increased up to three times of awarded damages) or substantial royalties and could be prevented from selling our products unless we obtain a license or are able to redesign our products to avoid infringement. Any such license may not be available on reasonable terms, if at all, and there can be no assurance that we would be able to redesign our products in a way that would not infringe the intellectual property rights of others. We could encounter delays in product introductions while we attempt to develop alternative methods or products. If we fail to obtain any required licenses or make any necessary changes to our products or technologies, we may have to withdraw existing products from the market or may be unable to commercialize one or more of our products.

In addition, we generally indemnify our customers with respect to infringement by our products of the proprietary rights of third parties. Third parties may assert infringement claims against our customers. These claims may require us to initiate or defend protracted and costly litigation on behalf of our customers, regardless of the merits of these claims. If any of these claims succeed or settle, we may be forced to pay damages or settlement payments on behalf of our customers or may be required to obtain licenses for the products they use. If we cannot obtain all necessary licenses on commercially reasonable terms, our customers may be forced to stop using our products.

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

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

Our success will depend on our, and any of our current and future licensors', ability to obtain, maintain and protect our intellectual property rights.

In order to remain competitive, we must develop, maintain and protect the proprietary aspects of our brands, technologies and data. We rely on a combination of contractual provisions, confidentiality procedures and patent, copyright, trademark, trade secret and other intellectual property laws to protect the proprietary aspects of our brands, technologies and data. These legal measures afford only limited protection, and competitors or others may gain access to or use our intellectual property and proprietary information. Our success will depend, in part, on preserving our trade secrets, maintaining the security of our data and know-how and obtaining and maintaining other intellectual property rights by us and our current and future licensors. We, and our current and future licensors, may not be able to obtain or maintain intellectual property or other proprietary rights necessary to our business or in a form that provides us with a competitive advantage.

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

We rely, in part, on our ability to obtain, maintain, expand, enforce, and defend the scope of our intellectual property portfolio or other proprietary rights, including the amount and timing of any payments we may be required to make in connection with the licensing, filing, defense and enforcement of any patents or other intellectual property rights. The process of applying for and obtaining a patent is expensive, time consuming and complex, and we may not be able to file, prosecute, maintain, enforce or license all necessary or desirable patent applications at a reasonable cost, in a timely manner, or in all jurisdictions where protection may be commercially advantageous, or we may not be able to protect our proprietary rights at all. Despite our efforts to protect our proprietary rights, unauthorized parties may be able to obtain and use information that we regard as proprietary. In addition, the issuance of a patent does not ensure that it is valid or enforceable, so even if we obtain patents, they may not be valid or enforceable against third parties. Our patent applications may not result in issued patents and our patents may not be sufficiently broad to protect our technology.

The degree of future protection for our proprietary rights is uncertain, and we cannot ensure that:

- any of our patents, or any of our pending patent applications, if issued, will include claims having a scope sufficient to protect our products;
- any of our pending patent applications will issue as patents;
- we will be able to successfully commercialize our products on a substantial scale, if approved, before our relevant patents we may have expire;
- we were the first to make the inventions covered by each of our patents and pending patent applications;
- we were the first to file patent applications for these inventions;
- others will not develop similar or alternative technologies that do not infringe our patents; any of our patents will be found to ultimately be valid and enforceable;
- any patents issued to us will provide a basis for an exclusive market for our commercially viable products, will provide us with any competitive advantages or will not be challenged by third parties;
- we will develop additional proprietary technologies or products that are separately patentable; or
- our commercial activities or products will not infringe upon the patents of others.

Moreover, even if we are able to obtain patent protection, such patent protection may be of insufficient scope to achieve our business objectives. Issued patents may be challenged, narrowed, invalidated or circumvented. Decisions by courts and governmental patent agencies may introduce uncertainty in the enforceability or scope of patents owned by or licensed to us. Furthermore, the issuance of a patent does not give us the right to practice the patented invention. Third parties may have blocking patents that could prevent us from marketing our own products and practicing our own technology. Alternatively, third parties may seek approval to market their own products similar to or otherwise competitive with our products. In these circumstances, we may need to defend or assert our patents, including by filing lawsuits alleging patent infringement. In any of these types of proceedings, a court or agency with jurisdiction may find our patents invalid, unenforceable or not infringed; competitors may then be able to market products and use manufacturing and analytical processes that are substantially similar to ours. Even if we have valid and enforceable patents, these patents still may not provide protection against competing products or processes sufficient to achieve our business objectives.

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

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

We also license rights to use certain proprietary information and technology from third parties. The use of such proprietary information and technology is therefore subject to the obligations of the applicable license agreement between us and the owner. For example, the software we developed for the Chartis System includes the use of open source software that is subject to the terms and conditions of the applicable open source software licenses that grant us permission to use such software. The owner of any such proprietary information or technology also might not enforce or otherwise protect its rights in the proprietary information or technology with the same vigilance that we would, which would allow competitors to use such proprietary information and technology without having to adhere to a license agreement with the owner.

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

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

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

Obtaining and maintaining patent protection depends on compliance with various procedural, document submission, fee payment and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.

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

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

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

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

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

We may be subject to claims that we or our employees have misappropriated the intellectual property of a third party, including trade secrets or know-how, or are in breach of non-competition or non-solicitation agreements

with our competitors and third parties may claim an ownership interest in intellectual property we regard as our own.

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

Additionally, we may be subject to claims from third parties challenging our ownership interest in intellectual property we regard as our own, based on claims that our employees or consultants have breached an obligation to assign inventions to another employer, to a former employer, or to another person or entity. Litigation may be necessary to defend against any other claims, and it may be necessary or we may desire to enter into a license to settle any such claim; however, there can be no assurance that we would be able to obtain a license on commercially reasonable terms, if at all. If our defense to those claims fails, in addition to paying monetary damages, a court could prohibit us from using technologies or features that are essential to our products, if such technologies or features are found to incorporate or be derived from the trade secrets or other proprietary information of the former employers. An inability to incorporate technologies or features that are important or essential to our products could have a material adverse effect on our business, financial condition and results of operations, and may prevent us from selling our products. In addition, we may lose valuable intellectual property rights or personnel. Even if we are successful in defending against these claims, litigation could result in substantial costs and could be a distraction to management. Any litigation or the threat thereof may adversely affect our ability to hire employees or contract with independent sales personnel. A loss of key personnel or their work product could hamper or prevent our ability to commercialize our products, which could have an adverse effect on our business, financial condition and results of operations.

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

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

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

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

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

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

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

Patent terms may not be able to protect our competitive position for an adequate period of time with respect to our current or future technologies.

Patents have a limited lifespan. In the United States, the standard patent term is typically 20 years after filing. Various extensions may be available. Even so, the life of a patent and the protection it affords are limited. As a result, our patent portfolio provides us with limited rights that may not last for a sufficient period of time to exclude others from commercializing products similar or identical to ours. For example, given the large amount of time required for the research, development, testing and regulatory review of implantable medical devices, patents protecting our products might expire before or shortly after they are commercialized.

Extensions of patent term may be available, but there is no guarantee that we would succeed in obtaining any particular extension-and no guarantee any such extension would confer patent term for a sufficient period of time to exclude others from commercializing products similar or identical to ours. In the United States, 35 U.S. Code § 156 Extension of patent term, permits a patent term extension of up to five years beyond the normal expiration of the patent, which is limited to the approved indication (or any additional indications approved during the period of extension). A patent term extension cannot extend the remaining term of a patent beyond 14 years from the date of product approval; only one patent may be extended; and extension is available for only those claims covering the approved device, a method for using it, or a method for manufacturing it. We have applied for such an extension however, the applicable authorities, including the FDA and the USPTO in the United States, and any equivalent regulatory authority in other countries, may not agree with our assessment of whether such extensions are available, and may refuse to grant extensions to any patents we obtain, or may grant more limited extensions than we request. An extension may not be granted or may be limited where there is, for example, a failure to exercise due diligence during the testing phase or regulatory review process, failure to apply within applicable deadlines, failure to apply before expiration of relevant patents, or some other failure to satisfy applicable requirements. If this occurs, our competitors may be able to launch their products earlier by taking advantage of our investment in development and clinical trials along with our clinical and pre-clinical data. This could have a material adverse effect on our business and ability to achieve profitability.

Risks Related to This Offering and Ownership of Our Common Stock

Our stock price may be volatile and the value of our common stock may decline.

The market price of our common stock may be highly volatile and may fluctuate or decline substantially as a result of a variety of factors, some of which are beyond our control or are related in complex ways, including:

- actual or anticipated fluctuations in our financial condition and results of operations;
- variance in our financial performance from expectations of securities analysts or investors;
- changes in the pricing we offer our customers;
- changes in our projected operating and financial results;
- changes in laws or regulations applicable to our solution;
- announcements by us or our competitors of significant business developments, acquisitions, or new offerings;
- publicity associated with issues related to our solution;
- our involvement in litigation;
- future sales of our common stock or other securities, by us or our stockholders, as well as the anticipation of lock-up releases;
- changes in senior management or key personnel;
- the trading volume of our common stock;
- changes in the anticipated future size and growth rate of our market;
- general economic, regulatory, and market conditions, including economic recessions or slowdowns;
- changes in the structure of healthcare payment systems; and
- developments or disputes concerning our intellectual property or other proprietary rights.

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 pandemic continues to rapidly evolve. The extent to which the pandemic may impact our business will depend on future developments, which are highly uncertain and cannot be predicted with confidence.

Broad market and industry fluctuations, as well as general economic, political, regulatory, and market conditions, may negatively impact the market price of our common stock. In addition, given the relatively small expected public float of shares of our common stock on the Nasdaq Global Select Market, the trading market for our shares may be subject to increased volatility. In the past, companies that have experienced volatility in the market price of their securities have been subject to securities class action litigation. We may be the target of this type of litigation in the future, which could result in substantial costs and divert our management's attention.

There has been no prior market for our common stock. An active market may not develop or be sustainable and investors may not be able to resell their shares at or above the initial public offering price.

There has been no public market for our common stock prior to this offering. The initial public offering price for our common stock will be determined through negotiations between the underwriters and us and may vary from the market price of our common stock following this offering. If you purchase shares of our common stock in this offering, you may not be able to resell those shares at or above the initial public offering price, if at all. An active or liquid market in our common stock may not develop after this offering or, if it does develop, it may not be sustainable.

You will experience immediate and substantial dilution in the net tangible book value of the shares of common stock you purchase in this offering.

The initial public offering price of our common stock will be substantially higher than the pro forma net tangible book value per share of our common stock immediately after this offering. If you purchase shares of our common stock in this offering, you will suffer immediate dilution of $10.93 per share, or $10.60 per share if the underwriters exercise their option to purchase additional shares in full, representing the difference between our pro forma as adjusted net tangible book value per share after giving effect to the sale of common stock in this offering and the initial public offering price of $15.00 per share, the midpoint of the price range set forth on the cover page of this prospectus. See "Dilution." If outstanding options or warrants are exercised in the future, you will experience additional dilution.

Future sales and issuances of our capital stock or rights to purchase capital stock could result in additional dilution of the percentage ownership of our stockholders and could cause the price of our common stock to decline.

We may issue additional securities following the closing of this offering. Future sales and issuances of our capital stock or rights to purchase our capital stock could result in substantial dilution to our existing stockholders. We may sell common stock, convertible securities, and other equity securities in one or more transactions at prices and in a manner as we may determine from time to time. If we sell any such securities in subsequent transactions, investors may be materially diluted. New investors in such subsequent transactions could gain rights, preferences, and privileges senior to those of holders of our common stock.

We will have broad discretion in the use of proceeds from this offering and may invest or spend the proceeds in ways with which you do not agree and in ways that may not yield a return.

We will have broad discretion over the use of proceeds from this offering. Investors may not agree with our decisions, and our use of the proceeds may not yield any return on your investment. We currently intend to use the net proceeds from this offering for working capital and other general corporate purposes. Our failure to apply the net proceeds of this offering effectively could impair our ability to pursue our growth strategy or could require us to raise additional capital. In addition, pending their use, the proceeds of this offering may be placed in investments that do not produce income or that may lose value.

Participation in this offering by our existing stockholders and their affiliated entities may reduce the public float for our common stock.

To the extent certain of our existing stockholders and their affiliated entities participate in this offering, such purchases would reduce the non-affiliate public float of our shares, meaning the number of shares of our common stock that are not held by officers, directors and principal stockholders. A reduction in the public float could reduce the number of shares that are available to be traded at any given time, thereby adversely impacting the liquidity of our common stock and depressing the price at which you may be able to sell shares of common stock purchased in this offering.

Additional sales of our common stock by existing stockholders in the public market could cause the market price of our common stock to decline.

Sales of a substantial number of shares of our common stock by existing stockholders in the public market following the closing of this offering, or the perception that these sales might occur, could depress the market price of our common stock and could impair our ability to raise capital through the sale of additional equity securities. We are unable to predict the effect that such sales may have on the prevailing market price of our common stock.

Based on shares outstanding as of June 30, 2020, upon the closing of this offering, we will have outstanding a total of 29,281,961 shares of common stock, assuming no exercise of the underwriters' option to purchase additional shares and no exercise of outstanding options or warrants, and after giving effect to the conversion of all outstanding shares of our preferred stock into 17,856,229 shares of common stock immediately prior to the closing of this offering (assuming a conversion ratio equal to approximately 1.0120 shares of common stock for each share of Series G-1 preferred stock based on an assumed initial public offering price of $15.00 per share, the midpoint of the price range set forth on the cover page of this prospectus) and the issuance of 2,650,773 shares of common stock in connection with the closing of this offering as a result of the automatic conversion of the $33.0 million aggregate principal amount of the 2020 Notes plus accrued interest, based on an assumed initial public offering price of $15.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and an assumed closing date of this offering and conversion date of October 2, 2020. All of our executive officers and directors and substantially all of our other existing security holders are subject to lock-up agreements that restrict their ability to transfer shares of our common stock, stock options, and other securities convertible into, exchangeable for, or exercisable for our common stock during the period ending on, and including, the 180th day after the date of this prospectus, subject to certain limited exceptions. BofA Securities, Inc. and Morgan Stanley & Co. LLC may, in their discretion, with or without notice, permit our stockholders who are subject to these lock-up agreements to sell shares prior to the expiration of the lock-up agreements. After the lock-up agreements expire, all 22,615,294 shares of common stock outstanding as of June 30, 2020 (including 2,650,773 shares of common stock issued on conversion of the 2020 Notes based on an assumed initial public offering price of $15.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and an assumed closing date of this offering and conversion date of October 2, 2020) will become eligible for sale, of which 6,251,662 shares held by directors, executive officers, and other affiliates will be subject to volume limitations under Rule 144 under the Securities Act of 1933, as amended (Securities Act), and various vesting agreements.

In addition, as of June 30, 2020, there were 3,490,688 shares of common stock subject to outstanding options. We intend to register all of the shares of common stock issuable upon conversion of the shares of common stock issuable upon exercise of outstanding options, and upon exercise of settlement of any options or other equity incentives we may grant in the future, for public resale under the Securities Act. Accordingly, these shares will be able to be freely sold in the public market upon issuance as permitted by any applicable vesting requirements, subject to the lock-up agreements described above. The shares of common stock issuable upon conversion of these shares will become eligible for sale in the public market to the extent such options or warrants are exercised, subject to the lock-up agreements described above and compliance with applicable securities laws.

Holders of 18,717,681 shares of our common stock, including shares issuable upon the conversion of outstanding shares of preferred stock, have rights, subject to some conditions, to require us to file registration statements for the public resale of the common stock issuable upon conversion of such shares or to include such shares in registration statements that we may file on our behalf or for other stockholders. See “Shares Eligible for Future Sale” and “Underwriting.”

Concentration of ownership of our common stock among our executive officers, directors and principal stockholders may prevent new investors from influencing significant corporate decisions.

Based on our common stock outstanding as of June 30, 2020 and including the shares to be sold in this offering, upon the closing of this offering, our executive officers, directors and current beneficial owners of 5% or more of our common stock will, in the aggregate, beneficially own approximately 53% of our outstanding common stock (assuming no exercise of the underwriters’ option to purchase additional shares of common stock, and including (i) 2,650,773 shares of common stock issued on conversion of the 2020 Notes based on an assumed initial public offering price of $15.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and an assumed closing date of this offering and conversion date of October 2, 2020, (ii) the automatic conversion of all shares of our preferred stock into 17,856,229 shares of common stock immediately prior to the closing of this offering (assuming a conversion ratio equal to approximately 1.0120 shares of common stock for each share of Series G-1 preferred stock based on an assumed initial public offering price of $15.00 per share, the midpoint of the price range set forth on the cover page of this prospectus) and (iii) 1,436,992 shares of common stock issued upon the exercise of options after June 30, 2020 through September 23, 2020). These stockholders, acting together, will be able to significantly influence all matters requiring stockholder approval, including the election and removal of directors and any merger or other significant corporate transactions. The interests of this group of stockholders may not coincide with the interests of other stockholders.

Some of these persons or entities may have interests different than yours. For example, because many of these stockholders purchased their shares at prices substantially below the price at which shares are being sold in this offering and have held their shares for a longer period, they may be more interested in selling our company to an acquirer than other investors, or they may want us to pursue strategies that deviate from the interests of other stockholders.

If securities or industry analysts do not publish research or publish unfavorable or inaccurate research about our business, our common stock price and trading volume could decline.

Our stock price and trading volume will be heavily influenced by the way analysts and investors interpret our financial information and other disclosures. If securities or industry analysts do not publish research or reports about our business, delay publishing reports about our business, or publish negative reports about our business, regardless of accuracy, our common stock price and trading volume could decline.

The trading market for our common stock will depend, in part, on the research and reports that securities or industry analysts publish about us or our business. We do not have any control over these analysts. We expect that only a limited number of analysts will cover our company following our initial public offering. If the number of analysts that cover us declines, demand for our common stock could decrease and our common stock price and trading volume may decline.

Even if our common stock is actively covered by analysts, we do not have any control over the analysts or the measures that analysts or investors may rely upon to forecast our future results. Over-reliance by analysts or investors on any particular metric to forecast our future results may result in forecasts that differ significantly from our own.

Regardless of accuracy, unfavorable interpretations of our financial information and other public disclosures could have a negative impact on our stock price. If our financial performance fails to meet analyst estimates, for any of the reasons discussed above or otherwise, or one or more of the analysts who cover us downgrade our common stock or change their opinion of our common stock, our stock price would likely decline.

We do not intend to pay dividends for the foreseeable future and, as a result, your ability to achieve a return on your investment will depend on appreciation in the price of our common stock.

We have never declared or paid any cash dividends on our capital stock, and we do not intend to pay any cash dividends in the foreseeable future. Any determination to pay dividends in the future will be at the discretion of our board of directors and may be restricted by the terms of any then-current credit facility. Accordingly, investors must rely on sales of their common stock after price appreciation, which may never occur, as the only way to realize any future gains on their investments.

We are an "emerging growth company" and a "smaller reporting company" and our compliance with the reduced reporting and disclosure requirements applicable to emerging growth companies could make our common stock less attractive to investors.

We are an "emerging growth company," as defined in the JOBS Act, and we expect to take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not "emerging growth companies" including, the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act (Section 404) reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. We cannot predict whether investors will find our common stock less attractive as a result of our reliance on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile. We have not elected to use the extended transition period under the JOBS Act which would have allowed us to delay implementing new accounting standards, and, therefore, we will be subject to the same accounting standards as other public companies that are not "emerging growth companies."

We are also a "smaller reporting company" as defined in the Exchange Act. We may continue to be a smaller reporting company even after we are no longer an "emerging growth company." We may take advantage of certain of reduced disclosures available to smaller reporting companies and will be able to take advantage of these reduced disclosures for so long as our voting and non-voting common stock held by non-affiliates is less than $250.0 million measured on the last business day of our second fiscal quarter, or our annual revenue is less than $100.0 million during the most recently completed fiscal year and our voting and non-voting common stock held by non-affiliates is less than $700.0 million measured on the last business day of our second fiscal quarter.

We will incur increased costs as a result of operating as a public company, and our management will be required to devote substantial time to compliance with our public company responsibilities and corporate governance practices.

As a public company, we will incur significant legal, accounting, and other expenses that we did not incur as a private company. We expect such expenses to further increase after we are no longer an "emerging growth company." The Sarbanes-Oxley Act, the Dodd-Frank Wall Street Reform and Consumer Protection Act, the listing requirements of the Nasdaq Global Select Market, and other applicable securities rules and regulations impose various requirements on public companies. Furthermore, the senior members of our management team do not have significant experience with operating a public company. As a result, our management and other personnel will have to devote a substantial amount of time to compliance with these requirements. Moreover, these rules and regulations will increase our legal and financial compliance costs and will make some activities more time-consuming and costly. We cannot predict or estimate the amount of additional costs we will incur as a public company or the timing of such costs.

As a result of being a public company, 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 will be required, pursuant to Section 404 to furnish a report by management on, among other things, the effectiveness of our 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. In addition, our independent registered public accounting firm will be required to attest to the effectiveness of our internal control over financial reporting in our first annual report required to be filed with the SEC following the date we are no longer an "emerging growth company." We have not yet commenced the costly and challenging process of compiling the system and processing documentation necessary to perform the evaluation required under Section 404, and we may not be able to complete our evaluation, testing, and any required remediation in a timely fashion once initiated. 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 the evaluation and testing process of our internal controls, if we identify one or more material weaknesses in our internal control over financial reporting, we will be unable to certify that our internal control over financial reporting is effective. We cannot assure you that there will not be material weaknesses or significant deficiencies in our internal control over financial reporting in the future. Any failure to maintain internal control over financial reporting could severely inhibit our ability to accurately report our financial condition or results of operations. If we are unable to conclude that our internal control over financial reporting is effective, or if our independent registered public accounting firm determines we have a material weakness or significant deficiency in our internal control over financial reporting, we could lose investor confidence in the accuracy and completeness of our financial reports, the market price of our common stock could decline and we could be subject to sanctions or investigations by the exchange on which our shares of common stock are listed, the SEC or other regulatory authorities. Failure to remedy any material weakness in our internal control over financial reporting, or to implement or maintain other effective control systems required of public companies, could also restrict our future access to the capital markets.

Anti-takeover provisions in our charter documents to be in effect upon the closing of this offering and under Delaware law could make an acquisition of our company more difficult, limit attempts by our stockholders to replace or remove our current management and limit the market price of our common stock.

Provisions in our amended and restated certificate of incorporation and amended and restated bylaws to be in effect upon the closing of this offering may have the effect of delaying or preventing a change of control or changes in our management. Our amended and restated certificate of incorporation and amended and restated bylaws will include provisions that:

- authorize our board of directors to issue, without further action by the stockholders, shares of undesignated preferred stock with terms, rights, and preferences determined by our board of directors that may be senior to our common stock;
- require that any action to be taken by our stockholders be effected at a duly called annual or special meeting and not by written consent;
- specify that special meetings of our stockholders can be called only by our board of directors, the chairperson of our board of directors, or our chief executive officer;
- establish an advance notice procedure for stockholder proposals to be brought before an annual meeting, including proposed nominations of persons for election to our board of directors;
- establish that our board of directors is divided into a number of classes, with each class serving staggered terms;
- prohibit cumulative voting in the election of directors;
- provide that our directors may be removed for cause only upon the vote of the holders of a majority of our outstanding shares of common stock;

- provide that vacancies on our board of directors may be filled only by a majority of directors then in office, even though less than a quorum; and
- require the approval of our board of directors or the holders of at least a majority of our outstanding shares of common stock to amend our bylaws and certain provisions of our certificate of incorporation.

These provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors, which is responsible for appointing the members of our management. 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, subject to certain exceptions, 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. Any delay or prevention of a change of control transaction or changes in our management could cause the market price of our common stock to decline.

Our amended and restated certificate of incorporation that will be in effect at the closing of this offering will provide that the Court of Chancery of the State of Delaware and, to the extent enforceable, the federal district courts of the United States will be the exclusive forums for substantially all disputes between us and our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers or employees.

Our amended and restated certificate of incorporation that will be in effect at the closing of this offering will provide that the Court of Chancery of the State of Delaware (or, if the Court of Chancery of the State of Delaware lacks subject matter jurisdiction, any state court located within the State of Delaware or, if all such state courts lack subject matter jurisdiction, the federal district court for the District of Delaware) is the sole and exclusive forum for the following types of actions or proceedings under Delaware statutory or common law for:

- any derivative action or proceeding brought on our behalf;
- any action asserting a breach of fiduciary duty;
- any action asserting a claim against us arising under the Delaware General Corporation Law;
- our amended and restated certificate of incorporation or our amended and restated bylaws; and
- any action asserting a claim against us that is governed by the internal-affairs doctrine.

These provisions would not apply to suits brought to enforce a duty or liability created by the Exchange Act or any claim for which the federal district courts of the United States have exclusive jurisdiction. Furthermore, Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all such actions under the Securities Act and an investor cannot waive compliance with the federal securities laws and the rules and regulations thereunder. Accordingly, both state and federal courts have jurisdiction to entertain such claims and there is uncertainty as to whether a court would enforce such a forum selection provision as written in connection with claims arising under the Securities Act. To prevent having to litigate claims in multiple jurisdictions and the threat of inconsistent or contrary rulings by different courts, among other considerations, our amended and restated certificate of incorporation to be in effect upon the closing of this offering will further provide that the federal district courts of the United States will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act. Any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock shall be deemed to have notice of and to have consented to the provisions of our amended and restated certificate of incorporation described above. While the Delaware courts have determined that such choice of forum provisions are facially valid, a stockholder may nevertheless seek to bring a claim in a venue other than those designated in the exclusive forum provisions. In such instance, we would expect to vigorously assert the validity and enforceability of the exclusive forum provisions of our amended and restated certificate of incorporation. This may require significant additional costs associated with resolving such action in other jurisdictions and there can be no assurance that the provisions will be enforced by a court in those other jurisdictions.

We believe these provisions may benefit us by providing increased consistency in the application of Delaware law and federal securities laws by chancellors and judges, as applicable, particularly experienced in resolving corporate disputes, efficient administration of cases on a more expedited schedule relative to other forums and protection against the burdens of multi-forum litigation. These exclusive-forum provisions may limit a stockholder’s ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers or other employees, which may discourage lawsuits against us and our directors, officers, and other employees. If a court were to find either exclusive-forum provision in our amended and restated certificate of incorporation to be inapplicable or unenforceable, we may incur further significant additional costs associated with resolving the dispute in other jurisdictions, all of which could seriously harm our business.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements about us and our industry that involve substantial risks and uncertainties. All statements other than statements of historical facts contained in this prospectus, including statements regarding our future results of operations and financial condition, business strategy, plans, and objectives of management for future operations and statements that are necessarily dependent upon future events are forward-looking statements. In some cases, you can identify forward-looking statements by words such as "anticipate," "believe," "contemplate," "continue," "could," "design," "estimate," "expect," "intend," "may," "plan," "potential," "predict," "project," "target," "should," "will," or the negative of these terms or other similar expressions, although not all forward-looking statements contain these words.

We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our financial condition, results of operations, business strategy, and financial needs. These forward-looking statements speak only as of the date of this prospectus and are subject to a number of known and unknown risks, uncertainties, and assumptions, including risks described in the section entitled "Risk Factors." These risks are not exhaustive. Other sections of this prospectus include additional factors that could harm our business and financial performance. Moreover, we operate in a very competitive and rapidly changing environment. New risk factors emerge from time to time, and it is not possible for our management to predict all risk factors nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ from those contained in, or implied by, any forward-looking statements.

You should not rely on these forward-looking statements as predictions of future events. We cannot assure you that the events and circumstances reflected in the forward-looking statements will be achieved or occur. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance, or achievements. Except as required by law, we undertake no obligation to update publicly any forward-looking statements for any reason after the date of this prospectus or to conform these statements to actual results or to changes in our expectations, whether as a result of any new information, future events, changed circumstances or otherwise. Forward-looking statements contained in this prospectus include, but are not limited to, statements about:

- our ability to design, develop, manufacture and market innovative products to treat patients with challenging medical conditions, particularly those with COPD and emphysema;
- our expectations regarding the impact of the COVID-19 pandemic on our business;
- our expected future growth, including growth in international sales;
- our expected future growth of our sales and marketing organization;
- the size and growth potential of the markets for our products, and our ability to serve those markets;
- the rate and degree of market acceptance of our products;
- coverage and reimbursement for procedures performed using our products;
- the performance of third parties in connection with the development of our products, including third-party suppliers;
- regulatory developments in the United States and foreign countries;
- our ability to obtain and maintain regulatory approval or clearance of our products on expected timelines;
- our plans to research, develop and commercialize our products and any other approved or cleared product;

- our ability to retain and hire our senior management and other highly qualified personnel;
- the development, regulatory approval, efficacy and commercialization of competing products and technologies in our industry;
- our expectations regarding the period during which we qualify as an emerging growth company under the JOBS Act;
- our ability to develop and maintain our corporate infrastructure, including our internal controls;
- our use of proceeds from this offering;
- our financial performance and capital requirements; and
- our expectations regarding our ability to obtain and maintain intellectual property protection for our products, as well as our ability to operate our business without infringing the intellectual property rights of others.

You should read this prospectus and the documents that we reference in this prospectus and have filed as exhibits to the registration statement of which this prospectus is a part with the understanding that our actual future results, levels of activity, performance and achievements may be materially different from what we expect. We qualify all of our forward-looking statements by these cautionary statements.

INDUSTRY AND MARKET DATA

We obtained the industry, market and competitive position data used throughout this prospectus from our own internal estimates and research, as well as from independent market research, industry and general publications and surveys, governmental agencies and publicly available information in addition to research, surveys and studies conducted by third parties. Internal estimates are derived from publicly available information released by industry analysts and third-party sources, our internal research and our industry experience, and are based on assumptions made by us based on such data and our knowledge of our industry and market, which we believe to be reasonable. In some cases, we do not expressly refer to the sources from which this data is derived. In addition, while we believe the industry, market and competitive position data included in this prospectus is reliable and based on reasonable assumptions, such data involve risks and uncertainties and are subject to change based on various factors, including those discussed in the section entitled “Risk Factors.” These and other factors could cause results to differ materially from those expressed in the estimates made by the independent parties or by us.

USE OF PROCEEDS

We estimate that the net proceeds to us from our issuance and sale of shares of our common stock in this offering will be approximately $88.0 million, or approximately $102.0 million if the underwriters exercise their option to purchase additional shares in full, based upon an assumed initial public offering price of $15.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

Each $1.00 increase or decrease in the assumed initial public offering price of $15.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, would increase or decrease the net proceeds to us from this offering by approximately $6.2 million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. We may also increase or decrease the number of shares we are offering. A 1,000,000 share increase or decrease in the number of shares offered by us would increase or decrease the net proceeds to us from this offering by approximately $14.0 million, assuming that the assumed initial public offering price remains the same, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The principal purposes of this offering are to increase our financial flexibility, create a public market for our common stock and facilitate our future access to the capital markets. We currently intend to use the net proceeds from this offering as follows:

- approximately $45 million to hire additional sales and marketing personnel and expand marketing programs in the United States, Europe and Asia Pacific to promote the sales of Zephyr Valves;

- approximately $15 million to fund product development and research and development activities;

- in accordance with the terms of the Oxford Agreement and based on the amount drawn thereunder, to pay a success fee of $1.9 million to Oxford on the closing of this offering; and

- the remaining proceeds for working capital and general corporate purposes, including acquisitions or strategic investments in complementary businesses or technologies, although we do not currently have any plans for any such acquisitions or investments.

The expected use of net proceeds from this offering represents our intentions based upon our present plans and business conditions, which could change in the future as our plans and business conditions evolve. As of the date of this prospectus, we cannot predict with certainty all of the particular uses for the proceeds of this offering or the amounts that we will actually spend on the uses set forth above. Accordingly, our management will have significant flexibility in applying the net proceeds of this offering. The timing and amount of our actual expenditures will be based on many factors, including cash flows from operations and the growth of our business. Pending their use, we intend to invest the net proceeds of this offering in a variety of capital-preservation investments, including short- and intermediate-term, interest-bearing, investment-grade securities and U.S. government securities.

DIVIDEND POLICY

We have never declared or paid any dividends on our capital stock. We currently intend to retain all available funds and any future earnings for the operation and expansion of our business and, therefore, we do not anticipate declaring or paying cash dividends in the foreseeable future. The payment of dividends will be at the discretion of our board of directors and will depend on our results of operations, capital requirements, financial condition, prospects, contractual arrangements, any limitations on payment of dividends present in our current and future debt agreements and other factors that our board of directors may deem relevant. We are subject to covenants under our loan agreements that place restrictions on our ability to pay dividends.

CAPITALIZATION

The following table sets forth our cash and cash equivalents and our capitalization as of June 30, 2020:

- on an actual basis;
- on a pro forma basis to reflect (1) the automatic conversion of all shares of our preferred stock outstanding as of June 30, 2020 into an aggregate of 17,856,229 shares of our common stock which resulted in the reclassification of the carrying value of our preferred stock to common stock and additional paid-in capital, which will occur in connection with the closing of this offering; (2) the assumed conversion of the $33.0 million aggregate outstanding principal amount and $0.8 million accrued interest of the 2020 Notes into 2,650,773 shares of our common stock in connection with the closing of this offering at a conversion price of $12.75 per share, based on the assumed initial public offering price of $15.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and an assumed closing date of this offering and conversion date of October 2, 2020; (3) the reclassification of the derivative instrument upon the conversion of the 2020 Notes and the estimated $3.3 million credit to additional paid-in capital; (4) a charge of $6.4 million to the accumulated deficit with a corresponding credit to additional paid in capital due to the loss on extinguishment of 2020 Notes (assuming an initial public offering price of $15.00 per share, which is the midpoint of the range reflected on the cover of this prospectus); and (5) the filing of our amended and restated certificate of incorporation in connection with the closing of this offering; and
- on a pro forma as adjusted basis to reflect (1) the pro forma items described immediately above; (2) the issuance and sale of shares of common stock in this offering at an assumed initial public offering price of $15.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us; and (3) the payment of a $1.9 million success fee to Oxford in accordance with the terms of the Oxford Agreement, reflected as a derivative liability.

Our capitalization following the closing of this offering will be adjusted based on the actual initial public offering price and other terms of this offering determined at pricing. You should read this table together with “Use of Proceeds,” “Selected Consolidated Financial and Other Data,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our consolidated financial statements and the related notes appearing elsewhere in this prospectus.

	As of June 30, 2020		
	Actual	Pro forma	Pro forma as Adjusted[(1)]
	(unaudited) (in thousands, except share and per share amounts)		
Cash and cash equivalents	$ 43,347	$ 43,347	$ 129,472
Term loan	$ 16,723	$ 16,723	$ 16,723
Convertible notes	29,310	—	—
Credit agreement	527	527	527
Derivative liabilities	4,355	1,055	—
Convertible preferred stock, $0.001 par value per share; 228,743,387 shares authorized, 17,797,026 shares issued and outstanding, actual; no shares authorized, issued and outstanding, pro forma and pro forma as adjusted	207,599	—	—
Stockholders' (deficit) equity:			
Common stock, $0.001 par value per share; 300,000,000 shares authorized, 2,108,292 shares issued and outstanding, actual; 200,000,000 shares authorized, 22,615,294 shares issued and outstanding, pro forma; 200,000,000 shares authorized, 29,281,961 shares issued and outstanding, pro forma as adjusted	2	22	29
Preferred stock, $0.001 par value per share; no shares authorized, no shares issued and outstanding, actual; 10,000,000 shares authorized, no shares issued and outstanding, pro forma and pro forma as adjusted	—	—	—
Additional paid-in capital	22,195	269,535	357,528
Accumulated other comprehensive loss	1,615	1,615	1,615
Accumulated deficit	(229,577)	(236,377)	(237,197)
Total stockholders' (deficit) equity	$ (205,765)	$ 34,795	$ 121,975
Total capitalization	$ 52,749	$ 53,100	$ 139,225

(1) Each $1.00 increase (decrease) in the assumed initial public offering price of $15.00 per share (the midpoint of the price range set forth on the cover of this prospectus), would increase (decrease) the amount of each of cash and cash equivalents, working capital, total assets, total stockholders' (deficit) equity and total capitalization by $6.2 million, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. We may also increase (decrease) the number of shares we are offering. Each increase (decrease) of 1,000,000 in the number of shares we are offering would increase (decrease) the amount of each of cash and cash equivalents, working capital, total assets and total stockholders' equity by $14.0 million, assuming the assumed initial public offering price of $15.00 per share (the midpoint of the price range set forth on the cover of this prospectus), remains the same and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. The pro forma as adjusted information is illustrative only and we will adjust this information based on the actual initial public offering price and other terms of this offering determined at pricing.

The number of shares of our common stock that will be outstanding after this offering is based on 22,615,294 shares of common stock outstanding as of June 30, 2020, which includes (i) 17,856,229 shares of common stock issuable upon the conversion of all of our outstanding shares of preferred stock outstanding as of June 30, 2020 (assuming a conversion ratio equal to approximately 1.0120 shares of common stock for each share of Series G-1 preferred stock based on an assumed initial public offering price of $15.00 per share, the midpoint of the price range set forth on the cover page of this prospectus) and (ii) the issuance of 2,650,773 shares of common stock in connection with the closing of this offering as a result of the automatic conversion of the $33.0 million aggregate principal amount of the 2020 Notes plus accrued interest, based on the assumed initial public offering price of $15.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and an assumed closing date of this offering and conversion date of October 2, 2020, and excludes:

- 3,490,688 shares of our common stock issuable upon the exercise of options outstanding as of June 30, 2020, at a weighted-average exercise price of $1.69 per share, of which 1,436,992 shares of common stock were issued upon the exercise of options after June 30, 2020 through September 23, 2020;
- 834,871 shares of our common stock issuable upon the exercise of outstanding stock options granted after June 30, 2020 through September 23, 2020 under our 2020 Stock Plan, with a weighted-average exercise price of $2.19 per share;
- 10,725 shares of our common stock reserved for issuance under our 2020 Stock Plan, which shares will cease to be available for issuance at the time our 2020 Equity Incentive Plan becomes effective;
- 353,500 shares of our common stock issuable upon the exercise of options that we expect to grant under our 2020 Equity Incentive Plan, which will become effective prior to the closing of this offering, to each of our non-employee directors and other employees and service providers at an exercise price equal to the initial public offering price of this offering;
- 3,600,000 shares of our common stock reserved for future issuance pursuant to our 2020 Equity Incentive Plan, which will become effective prior to the closing of this offering, as well as any annual automatic evergreen increases in the number of shares of our common stock reserved for issuance under our 2020 Equity Incentive Plan; and
- 720,000 shares of common stock reserved for future issuance under our 2020 Employee Stock Purchase Plan, which will become effective prior to the closing of this offering and will include provisions that automatically increase the number of shares of common stock reserved for issuance thereunder each year.

DILUTION

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

As of June 30, 2020, our historical net tangible book deficit was $208.6 million, or $98.92 per share of our common stock. Our historical net tangible book deficit represents our total tangible assets (total assets less intangible assets and goodwill) less our total liabilities and our preferred stock that is not included in equity. Our historical net tangible book value per share represents historical net tangible book value divided by the number of shares of our common stock outstanding as of June 30, 2020.

Our pro forma net tangible book value as of June 30, 2020 was $32.0 million, or $1.41 per share of common stock. Pro forma net tangible book value per share represents our total tangible assets less our total liabilities, divided by the number of shares of common stock outstanding as of June 30, 2020, after giving effect to (i) the automatic conversion of 17,856,229 shares of preferred stock outstanding as of June 30, 2020 immediately upon the closing of this offering (assuming a conversion ratio equal to approximately 1.0120 shares of common stock for each share of Series G-1 preferred stock based on an assumed initial public offering price of $15.00 per share, the midpoint of the price range set forth on the cover page of this prospectus); (ii) the assumed conversion of the $33.0 million aggregate outstanding principal amount and $0.8 million accrued interest of the 2020 Notes into 2,650,773 shares of our common stock in connection with the closing of this offering at a conversion price of $12.75 per share, based on the assumed initial public offering price of $15.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and an assumed closing date of this offering and conversion date of October 2, 2020; and (iii) the reclassification of the derivative instrument upon the conversion of the 2020 Notes and the estimated $3.3 million credit to additional paid-in capital.

Our pro forma as adjusted net tangible book value represents our pro forma net tangible book value, plus the effect of the sale of shares of common stock in this offering at an assumed initial public offering price of $15.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

Our pro forma as adjusted net tangible book value as of June 30, 2020 would have been $119.2 million, or $4.07 per share of our common stock. This amount represents an immediate increase in pro forma as adjusted net tangible book value of $2.66 per share to our existing stockholders and an immediate dilution of $10.93 per share to investors participating in this offering. We determine dilution per share to investors participating in this offering by subtracting pro forma as adjusted net tangible book value per share after this offering from the assumed initial public offering price per share paid by investors participating in this offering.

The following table illustrates this dilution on a per share basis to new investors:

Assumed initial public offering price per share		$ 15.00
Historical net tangible book (deficit) value per share as of June 30, 2020	$ (98.92)	
Pro forma change in historical net tangible book deficit per share attributable to the pro forma transactions described in the preceding paragraphs	$ 100.33	
Pro forma net tangible book value per share as of June 30, 2020	$ 1.41	
Increase in pro forma net tangible book value per share attributed to new investors participating in this offering	$ 2.66	
Pro forma as adjusted net tangible book value per share after giving effect to this offering		$ 4.07
Dilution in pro forma as adjusted net tangible book value per share to new investors in this offering		$ 10.93

The dilution information discussed above is illustrative only and will change based on the actual initial public offering price and other terms of this offering determined at pricing. Each $1.00 increase in the assumed initial public offering price of $15.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase the pro forma as adjusted net tangible book value per share by $0.23 per share and the dilution in pro forma as adjusted net tangible book value per share to new investors participating in this offering by $0.77 per share, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. Each $1.00 decrease in the assumed initial public offering price of $15.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would decrease the pro forma as adjusted net tangible book value per share by $0.28 per share and decrease the dilution in pro forma as adjusted net tangible book value per share to new investors participating in this offering by $0.72 per share, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. We may also increase or decrease the number of shares we are offering. A 1,000,000 share increase in the number of shares offered by us, as set forth on the cover page of this prospectus, would increase the pro forma as adjusted net tangible book value per share by $0.33 and decrease the dilution per share to investors participating in this offering by $0.33, assuming the assumed initial public offering price of $15.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. A 1,000,000 share decrease in the number of shares offered by us, as set forth on the cover page of this prospectus, would decrease the pro forma as adjusted net tangible book value per share after this offering by $0.35 and increase the dilution per share to new investors participating in this offering by $0.35, assuming the assumed initial public offering price of $15.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, remains the same and after estimated deducting underwriting discounts and commissions and estimated offering expenses payable by us. The pro forma as adjusted information discussed above is illustrative only and will adjust based on the actual initial offering price to public and other terms of this offering determined at pricing.

If the underwriters exercise their option in full to purchase 1,000,000 additional shares of our common stock in this offering, the pro forma as adjusted net tangible book value of our common stock would increase to $4.40 per share, representing an immediate increase to existing stockholders of $0.33 per share and an immediate dilution of $10.60 per share to investors participating in this offering, in each case, assuming the assumed initial public offering price of $15.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, remains the same and after estimated deducting underwriting discounts and commissions and estimated offering expenses payable by us.

The following table summarizes as of June 30, 2020, on the pro forma as adjusted basis described above, the number of shares of our common stock, the total consideration and the average price per share (1) paid to us by our existing stockholders and (2) to be paid by investors purchasing our common stock in this offering at an assumed initial public offering price of $15.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, before deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

	Shares Purchased		Total Consideration		Weighted-Average Price
	Number	Percent	Amount (in thousands)	Percent	Per Share
Existing stockholders	22,615,294	77.23 %	$ 261,296	72.32 %	$ 11.55
New investors	6,666,667	22.77 %	$ 100,000	27.68 %	$ 15.00
Total	29,281,961	100 %	$ 361,296	100 %	

If the underwriters' option to purchase additional shares is exercised in full, the number of shares of our common stock held by existing stockholders would be reduced to 74.68% of the total number of shares of our common stock outstanding after this offering, and the number of shares of common stock held by new investors purchasing common stock in this offering would be increased to 25.32% of the total number of shares of our common stock outstanding after this offering.

The outstanding share information in the table above is based on 22,615,294 shares of our common stock outstanding as of June 30, 2020, which includes (i) 17,856,229 shares of common stock issuable upon the conversion of all of our outstanding shares of preferred stock outstanding as of June 30, 2020 (assuming a conversion ratio equal to approximately 1.0120 shares of common stock for each share of Series G-1 preferred stock based on an assumed initial public offering price of $15.00 per share, the midpoint of the price range set forth on the cover page of this prospectus), and (ii) the conversion of the 2020 Notes plus accrued interest thereon into 2,650,773 shares of our common stock based on the assumed initial public offering price of $15.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and an assumed closing date of this offering and conversion date of October 2, 2020, in connection with the closing of this offering and excludes:

- 3,490,688 shares of our common stock issuable upon the exercise of options outstanding as of June 30, 2020, at a weighted-average exercise price of $1.69 per share, of which 1,436,992 shares of common stock were issued upon the exercise of options after June 30, 2020 through September 23, 2020;

- 834,871 shares of our common stock issuable upon the exercise of outstanding stock options granted after June 30, 2020 through September 23, 2020 under our 2020 Stock Plan, with a weighted-average exercise price of $2.19 per share;

- 10,725 shares of our common stock reserved for issuance under our 2020 Stock Plan, which shares will cease to be available for issuance at the time our 2020 Equity Incentive Plan becomes effective;

- 353,500 shares of our common stock issuable upon the exercise of options that we expect to grant under our 2020 Equity Incentive Plan, which will become effective prior to the closing of this offering, to each of our non-employee directors and other employees and service providers at an exercise price equal to the initial public offering price of this offering;

- 3,600,000 shares of our common stock reserved for future issuance pursuant to our 2020 Equity Incentive Plan, which will become effective prior to the closing of this offering, as well as any annual automatic evergreen increases in the number of shares of our common stock reserved for issuance under our 2020 Equity Incentive Plan; and

- 720,000 shares of our common stock reserved for future issuance under our 2020 Employee Stock Purchase Plan, which will become effective prior to the closing of this offering and will include provisions that automatically increase the number of shares of common stock reserved for issuance thereunder each year.

To the extent any of the outstanding options described above are exercised, new options are issued or we issue additional shares of common stock or other equity or convertible debt securities in the future, there will be further dilution to investors participating in this offering.

SELECTED CONSOLIDATED FINANCIAL AND OTHER DATA

The selected consolidated statements of operations data presented below for the years ended December 31, 2018 and 2019 and the selected consolidated balance sheet data as of December 31, 2018 and 2019 are derived from our audited consolidated financial statements included elsewhere in this prospectus. We have derived the selected consolidated statements of operations data for the six months ended June 30, 2019 and 2020 and our selected consolidated balance sheet data as of June 30, 2020 from our unaudited interim condensed consolidated financial statements included elsewhere in this prospectus. The unaudited interim condensed consolidated financial statements have been prepared on the same basis as our audited consolidated financial statements and reflect, in the opinion of management, all adjustments, consisting only of normal, recurring adjustments that are necessary for a fair presentation of the unaudited interim consolidated information. Our historical results are not necessarily indicative of the results that may be expected in the future and our operating results for the six months ended June 30, 2020 are not necessarily indicative of the results that may be expected for the fiscal year ended December 31, 2020 or any other interim periods or any future year or period.

When you read this selected consolidated financial and other data, it is important that you read it together with the historical consolidated financial statements and related notes to those statements, as well as "Management's Discussion and Analysis of Financial Condition and Results of Operations," included elsewhere in this prospectus.

	Years Ended December 31,		Six Months Ended June 30,	
	2018	2019	2019	2020
			(unaudited)	
	(in thousands, except share and per share amounts)			
Consolidated Statements of Operations Data:				
Revenue	$ 20,004	$ 32,595	$ 13,144	$ 12,291
Cost of goods sold	7,718	10,181	4,474	5,629
Gross profit	12,286	22,414	8,670	6,662
Operating expenses:				
Research and development	6,991	6,049	3,047	2,991
Selling, general and administrative	20,347	34,203	15,558	21,301
Total operating expenses	27,338	40,252	18,605	24,292
Loss from operations	(15,052)	(17,838)	(9,935)	(17,630)
Interest income	21	432	143	89
Interest expense	(2,520)	(2,317)	(1,407)	(1,811)
Other income (expense), net	(916)	(617)	(373)	421
Net loss before tax	(18,467)	(20,340)	(11,572)	(18,931)
Income tax expense	12	363	127	143
Net loss	$ (18,479)	$ (20,703)	$ (11,699)	$ (19,074)
Net loss per share attributable to common stockholders, basic and diluted[(1)]	$ (11.03)	$ (11.66)	$ (6.85)	$ (9.93)
Weighted-average shares used in computing net loss per share attributable to common stockholders, basic and diluted[(1)]	1,674,779	1,776,110	1,709,097	1,921,073
Pro forma net loss per share attributable to common stockholders, basic and diluted (unaudited)[(1)]		$ (1.14)		$ (0.91)
Weighted-average shares used in computing pro forma net loss per share, basic and diluted (unaudited)[(1)]		18,133,760		20,804,441

(1) For an explanation of the method used to calculate our historical and pro forma basic and diluted net loss per share, and weighted average number of shares used in the computation of per share amounts, see Note 12 to our consolidated financial statements included elsewhere in the prospectus.

	As of December 31,		As of June 30,
	2018	2019	2020
			(unaudited)
		(in thousands)	
Consolidated Balance Sheet Data:			
Cash, cash equivalents and short-term marketable securities	$ 4,124	$ 28,347	$ 43,347
Working capital[(1)]	3,236	26,910	46,918
Total assets	15,013	53,533	66,721
Derivative Liabilities	642	1,165	4,355
Term loan	14,937	14,965	16,723
Convertible note payable to related party	18,668	—	—
Convertible notes	—	—	29,310
Credit agreement	—	—	527
Convertible preferred stock warrant liability	12	—	—
Total liabilities	41,804	35,572	64,887
Convertible preferred stock	140,535	205,339	207,599
Accumulated deficit	(189,800)	(210,503)	(229,577)
Total stockholders' (deficit) equity	(167,326)	(187,378)	(205,765)

(1) We define working capital as current assets less current liabilities. See our audited consolidated financial statements and the related notes included elsewhere in this prospectus for further details regarding our current assets and current liabilities as of December 31, 2018 and 2019. See our interim condensed consolidated financial statements and the related notes included elsewhere in this prospectus for further details regarding our current assets and current liabilities as of June 30, 2020.

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

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

Overview

We are a commercial-stage medical technology company that provides a minimally invasive treatment for patients with severe emphysema, a form of chronic obstructive pulmonary disease (COPD). Our solution, which is comprised of the Zephyr Endobronchial Valve (Zephyr Valve), the Chartis Pulmonary Assessment System (Chartis System) and the StratX Lung Analysis Platform (StratX Platform), is designed to treat severe emphysema patients who, despite medical management, are still profoundly symptomatic and either do not want or are ineligible for surgical approaches. We estimate our solution currently addresses approximately 500,000 patients in the United States and 700,000 patients in select international markets, which represents a global market opportunity of approximately $12 billion.

We have a compelling body of clinical evidence with over 100 scientific articles published regarding the clinical benefits of Zephyr Valves, including in *The New England Journal of Medicine*, *The Lancet* and the *American Journal of Respiratory and Critical Care Medicine*. Multiple randomized controlled clinical trials have demonstrated that patients selected with the Chartis System and successfully treated with Zephyr Valves have shown statistically and clinically significant improvements in lung function, exercise capacity and quality of life compared to medical management alone.

In June 2018, we received pre-market approval (PMA) by the U.S. Food and Drug Administration (FDA) as a result of our breakthrough technology designation. The Zephyr Valve is now commercially available in more than 25 countries, with over 80,000 valves used to treat more than 20,000 patients through June 30, 2020. We have established reimbursement in major markets in North America, Europe and Asia Pacific and the Zephyr Valve has been included in treatment guidelines for COPD worldwide.

We market and sell our products in the United States through a direct sales organization consisting of 42 sales territory managers as of June 30, 2020. Our sales territory managers are focused on promoting awareness and increasing adoption of our solution primarily among the approximately 800 pulmonologists performing interventional pulmonary procedures and across approximately 500 high volume hospitals in the United States. As of June 30, 2020, we had 28 sales territory managers outside the United States, with 20 in Europe and eight in Asia Pacific. We are expanding our commercial operations in the United States while continuing to foster our international growth. We employ both direct and distributor-based sales models, with over 90% of our revenue generated in markets where we sell directly.

In the United States, our solution is reimbursed based on established Category I Current Procedural Terminology (CPT) and ICD-10 Procedure Coding System (PCS) codes and associated MS-DRG and APC payment groupings. Current reimbursement in the United States is generally sufficient to cover the hospital costs of the procedure and related inpatient care. Commercial payors such as Aetna and Humana have issued positive coverage policies for the Zephyr Valve, and United Healthcare no longer considers the procedure unproven or experimental. Medicare covers our solution for patients when medically necessary, and other commercial insurers are approving pre-authorization requests on a case-by-case basis. Outside the United States, our solution is covered by major health systems across much of Europe, Australia and South Korea.

We manufacture all our products at our headquarters located in Redwood City, California. This facility supports production and distribution operations, including manufacturing, quality control, raw material and finished goods storage. We have manufactured all our products at this facility for over ten years. We also store finished goods at secondary facilities. We seek to maintain higher levels of inventory to protect ourselves from supply interruptions and have an established distribution system for both U.S. and international customers.

To date, we have financed our operations primarily through private placements of equity securities, debt financing arrangements and sales of our products. We have devoted substantially all of our resources to research and development activities related to our solution, including clinical and regulatory initiatives to obtain marketing approval, and sales and marketing activities. We generated revenue of $32.6 million, with a gross margin of 68.8% and a net loss of $20.7 million, for the year ended December 31, 2019 compared to revenue of $20.0 million, with a gross margin of 61.4% and a net loss of $18.5 million, for the year ended December 31, 2018. For the six months ended June 30, 2020, we generated revenue of $12.3 million, with a gross margin of 54.2% and a net loss of $19.1 million, compared to revenue of $13.1 million, with a gross margin of 66.0% and a net loss of $11.7 million, for the six months ended June 30, 2019. As of June 30, 2020, we had an accumulated deficit of $229.6 million, cash and cash equivalents of $43.3 million, and $46.6 million of outstanding term loans, convertible notes, and credit agreements, net of debt discount and debt issuance costs. In April 2020, we also received $33.0 million in aggregate gross proceeds from the issuance and sale of convertible promissory notes, or the 2020 Notes. We have the option to call up to an additional $33.0 million for a maximum aggregate amount of $66.0 million, subject to customary closing conditions and provided that any such call be for no less than $5.0 million on or prior to April 17, 2022. All unpaid interest and principal will be due and payable upon request of the majority of Lenders on or after the earlier of April 17, 2022 or an event of default.

We have invested heavily in product development. Our research and development activities have been centered on driving continuous improvements to our solution. We have also made significant investments in clinical studies to demonstrate the safety and efficacy of the Zephyr Valve and to support regulatory submissions. We intend to make significant investments building our sales and marketing organization by increasing the number of sales territory managers and continuing our marketing efforts in existing and new markets throughout the United States, Europe and Asia Pacific. We also intend to continue to make investments in research and development efforts to develop our next generation products and support our future regulatory submissions to increase our addressable market and to expand indications and new markets. Because of these and other factors, we expect to continue to incur net losses for the next several years and we expect to require substantial additional funding, which may include future equity and debt financings.

The table below sets forth our revenue from U.S. and international sales over the past eight quarters on a quarterly basis (in millions).

	September 30, 2018	December 31, 2018	March 31, 2019	June 30, 2019	September 30, 2019	December 31, 2019	March 31, 2020	June 30, 2020
					(unaudited)			
Revenue from:								
U.S. sales	$ 0.1	$ 0.5	$ 0.8	$ 1.8	$ 3.4	$ 4.7	$ 4.5	$ 1.5
International sales	4.9	4.9	5.0	5.6	5.7	5.6	4.1	2.2
Total revenue	$ 5.0	$ 5.4	$ 5.8	$ 7.4	$ 9.1	$ 10.3	$ 8.6	$ 3.7

Our management has concluded, and in its report on our financial statements for the year ended December 31, 2019 our independent registered public accounting firm included an explanatory paragraph stating, that our recurring losses from operations and negative cash flows since inception and our need to raise additional funding to finance our operations raise substantial doubt about our ability to continue as a going concern. See "Risk Factors—Risks Related to Our Business and Strategy—Our history of recurring losses and anticipated expenditures raise substantial doubts about our ability to continue as a going concern. Our ability to continue as a going concern requires that we obtain sufficient funding to finance our operations."

Impact of the COVID-19 Pandemic

Since it was reported to have surfaced in December 2019, a novel strain of coronavirus (COVID-19) has spread across the world and has been declared a pandemic by the World Health Organization. Efforts to contain the spread of COVID-19 have intensified and governments around the world, including in the United States, Europe and Asia, have implemented severe travel restrictions, social distancing requirements, quarantines, stay-at-home orders and other significant restrictions which have also resulted in delay of clinical trials and FDA operations. As a result, the current COVID-19 pandemic has presented a substantial public health and economic challenge around the world and is affecting our employees, including our sales force, hospitals, physicians, patients, communities and business operations, as well as contributing to significant volatility and negative pressure on the U.S. and world economy and in financial markets.

The COVID-19 pandemic has negatively impacted our business, financial condition and results of operations by decreasing and delaying substantially all procedures performed using our products, and we expect the pandemic to continue to negatively impact our business, financial condition and results of operations. Similar to the general trend in elective and other surgical procedures, the number of procedures performed using our products has decreased substantially as healthcare organizations across the globe have prioritized the treatment of patients with COVID-19 or have altered their operations to prepare for and respond to the pandemic. For example, in the United States, governmental authorities have recommended, and, in certain cases, required, that elective, specialty and other procedures and appointments be suspended or canceled to avoid non-essential patient exposure to medical environments and potential infection with COVID-19 and to focus limited resources and personnel capacity toward the treatment of COVID-19 patients.

In response to the COVID-19 pandemic, we have implemented a variety of measures intended to help us manage through its impact and position us to resume operations quickly and efficiently once these restrictions are lifted. These measures include:

- Establishing safety protocols, facility enhancements, and work-from-home strategies to protect our employees;
- Ensuring that our manufacturing and supply chain operations remain intact and operational, and building over four months of inventory;
- Keeping our workforce intact and continuing to build our team, including expansion of our U.S. sales force from 32 representatives at the end of December 2019 to 42 representatives at the end of June 2020;
- Continuing to focus on new account openings and implementing virtual physician and sales force training programs;
- Accelerating our physician education programs and direct-to-patient marketing efforts through social media or other virtual forums;
- Temporarily cutting over $2 million in discretionary spending in the second quarter of 2020;
- Increasing our capital base by $33.0 million through a convertible debt offering with existing and new investors in April 2020; and
- Continuing to invest in research and development activities in order to advance our AeriSeal clinical programs.

The COVID-19 pandemic has also negatively impacted the number of procedures using the Zephyr Valve as hospitals focus on COVID-19 and as patients postpone healthcare visits and treatments. Specifically, beginning in the second half of March, substantially all procedures using our products were postponed or cancelled as COVID-19 spread to the various regions across the globe where we conduct our business and sell our products. Unit volumes for our Zephyr Valves sold declined by approximately 55% for the three months ended June 30, 2020 compared to the three month period ended March 31, 2020, reaching a year to date monthly low in April. However, beginning in May, we began to see signs of a recovery in our business, and by September 11, 2020 the total number of Zephyr Valves sold in the third quarter of 2020 through that date was approximately the same as the total number of Zephyr Valves sold during the three months ended March 31, 2020.

Although no assurance can be given that this trend will continue, we are encouraged by the signs of recovery of our business in the third quarter of 2020, and we believe the following key indicators are contributing to the stabilization of our business:

- Continued opening of new accounts;
- Strong physician participation in virtual trainings;
- A strong patient pipeline evidenced by an increase in StratX report activity near to pre-COVID-19 levels, a rebound in patient calls into hospitals inquiring about our procedure, and a resumption of patient calls to our reimbursement support service; and
- Hospitals and centers beginning to accept patients for elective procedures.

Despite the encouraging signs of recovery of our business, we believe the measures and challenges resulting from COVID-19 will likely continue for the duration of the pandemic, which is uncertain, and will continue to significantly reduce our revenue and negatively impact our business, financial condition and results of operations while the pandemic continues. As a result, we cannot assure you that our recent increase in the Zephyr Valves sold are indicative of future results or that we will not experience additional negative impacts associated with COVID-19, which could be significant. In particular, we believe the reduction in the backlog of patients who have cancelled or postponed their procedures in the second quarter of 2020 is significantly contributing to the number of procedures and Zephyr Valves sold in the third quarter of 2020 as hospitals and centers are beginning to accept patients for elective procedures. However, the number of Zephyr Valves sold in the future may decrease as the backlog of patients who have cancelled or postponed their procedures due to the pandemic is reduced. The COVID-19 pandemic has negatively impacted our business, financial condition and results of operations by significantly decreasing and delaying the number of procedures performed using our products, and we expect the pandemic to continue to negatively impact our business, financial condition and results of operations. Further, once the pandemic subsides, there may be a substantial backlog of patients seeking appointments with physicians and surgeries to be performed at hospitals relating to a variety of medical conditions, and as a result, patients seeking treatment with Zephyr Valves may have to navigate limited provider capacity. We believe this limited provider and hospital capacity could have a significant adverse effect on our business, financial condition and results of operations following the end of the pandemic. The extent to which the COVID-19 pandemic impacts our business will depend on future developments, which are highly uncertain and cannot be predicted, including new information which may emerge concerning the severity and spread of COVID-19 and the actions to contain COVID-19 or treat its impact, among others.

Our consolidated financial statements reflect judgments and estimates that could change in the future as a result of the COVID-19 pandemic. See “Risk Factors—Risks Related to Our Business and Strategy—A pandemic, epidemic or outbreak of an infectious disease in the United States or worldwide, including the outbreak of the novel strain of coronavirus disease, COVID-19, could adversely affect our business.”

Factors Affecting our Business and Results of Operations

We believe there are several important factors that have impacted and that we expect will continue to impact our business and results of operations. These factors include:

Our Ability to Recruit, Train and Retain Our Sales Force and its Productivity

We have made, and intend to continue to make, significant investments in recruiting, training and retaining our direct sales force. This process requires significant education and training for our sales personnel to achieve the level of technical competency with our products that is expected by physicians and to gain experience building demand for our products. Upon completion of the training, our sales personnel typically require time in the field to grow their network of accounts and increase their productivity to the levels we expect. Successfully recruiting, training and retaining additional sales personnel will be required to achieve growth. In addition, inability to attract qualified sales personnel or the loss of any productive sales personnel would have a negative impact on our ability to grow our business. As of June 30, 2020, we had 42 sales territory managers in the United States and 28 sales territory managers outside the United States, with 20 in Europe and eight in Asia Pacific.

We have in the past and expect in the future to enter into different compensation arrangements with our sales professionals, which include minimum guaranteed commissions. This has impacted our compensation expenses in the past and we expect it will do so in the future.

Physician, Patient and Hospital Awareness and Acceptance of Our Solution

Our goal is to establish our solution as a standard of care for severe emphysema. We intend to continue to promote awareness of our solution through training and educating physicians, pulmonary rehabilitation centers, key opinion leaders and various medical societies on the proven clinical benefits of Zephyr Valves. In addition, we intend to continue to publish additional clinical data in various industry and scientific journals and online and to present at various industry conferences. We plan to continue building patient awareness through our direct-to-patient marketing initiatives, which include advertising, social media and online education. We also intend to continue helping physicians in their outreach to patients and other healthcare providers. These efforts require significant investment by our marketing and sales organization, and vary depending upon the physician’s practice specialization, and personal preferences and geographic location of physicians, pulmonary rehabilitation centers and patients. In order to grow our business, we will need to continue to make significant investments in training and educating hospitals, physicians and patients on the advantages of our solution for the treatment of severe emphysema.

Third-Party Reimbursement

Since achieving regulatory approval in the United States in June 2018, we have launched the Zephyr Valve treatment and have made progress securing third-party payor reimbursement. The majority of our patients are Medicare beneficiaries. We estimate that roughly 75% of the potential Zephyr Valve patient population are Medicare/Medicaid beneficiaries, of which approximately 25% have managed Medicare/Medicaid and the remaining 50% have traditional Medicare/Medicaid. Approximately 25% of the potential Zephyr Valve patient population is under third-party commercial payor policies. A key element of our strategy remains to broaden our coverage by private third-party payor policies. As of June 30, 2020, commercial payors such as Aetna, Humana, Priority Health and Emblem Health have issued positive coverage policies for endobronchial valve procedures. United Healthcare removed the endobronchial valve codes from their non-covered list, and as such no longer considers the procedure unproven or experimental. Other commercial payors, such as many plans in the Blue Cross Blue Shield family of plans, do not yet consider our solution medically necessary, but these same plans are approving pre-authorization requests on a case-by-case basis. Medicare, currently without a public coverage policy, covers our solution for patients when medically necessary on a case-by-case basis and other commercial insurers not described above are approving pre-authorization requests on a case-by-case basis.

We have a dedicated patient reimbursement support team in the United States that works collaboratively with patients and providers to help secure the appropriate prior authorization approvals in advance of treatment. We continue to educate private insurers in the United States on our clinical data and patient selection tools in an effort to continue to expand the number of positive coverage policies, in order to increase our revenue. Outside the United States, our solution is covered by major health systems across much of Europe, Australia and South Korea.

Competition

Our industry is highly competitive and subject to rapid change from the introduction of new products and technologies and other activities of industry participants. Our goal is to establish our solution as a standard of care for severe emphysema. Existing treatments include medical management, lung volume reduction surgery (LVRS), lung transplantation as well as other minimally invasive treatments. Some of our competitors have several competitive advantages, including established relationships with pulmonologists who commonly treat patients with emphysema, significantly greater name recognition and significantly greater sales and marketing resources. In addition to competing for market share, we also compete against these companies for personnel, including qualified sales and other personnel that are necessary to grow our business. Certain of our competitors may challenge our intellectual property, may develop additional competing or superior technologies and processes and compete more aggressively and sustain that competition over a longer period of time than we could. In addition to existing competitors, other companies may acquire or in-license competitive products and could directly compete with us. We must continue to successfully compete in light of our competitors' existing and future products and related pricing and their resources to successfully market to the physicians who use our products.

Leveraging Our Manufacturing Capacity is Critical to Improving Our Gross Margin

With our current operating model and infrastructure, we have the capacity to significantly increase our manufacturing production. If we grow our revenue and sell more units, our fixed manufacturing costs will be spread over more units, which we believe will reduce our manufacturing costs on a per-unit basis and in turn improve our gross margin. In addition, we intend to continue investing in manufacturing efficiencies in order to reduce our overall manufacturing costs. However, other factors will continue to impact our gross margins such as geographic mix, pricing and customer discounts, incentives, support services and potential seasonality.

Investing in Research and Development to Foster Innovation to Expand Our Addressable Market

We intend to continue investing in existing and next generation technologies to further improve our products and clinical outcomes, enhance patient selection and broaden the patient population that can be treated with our products. In addition, we are continuing to invest in the accuracy and features of our patient assessment tools. Moreover, we plan to conduct clinical research of AeriSeal, a potential product in development for the treatment of severe emphysema patients who are not qualified for Zephyr Valve treatment due to excessive collateral ventilation.

While research and development and clinical testing are time consuming and costly, we believe that a pipeline of new products and product enhancements that improve efficacy, safety and cost effectiveness is critical to increasing the adoption of our solution.

Seasonality

Historically, we have experienced seasonality outside of the United States, primarily in the first and third quarters and anticipate this trend to continue. In addition, as our sales grow in the United States, we may experience seasonality based on holidays, vacations and other factors because this is an elective procedure.

Components of Our Results of Operations

Revenue

We currently derive substantially all our revenue from the sale of our products to hospitals and distributors. We market and sell our products through a direct sales organization in the United States and through direct sales and several third-party distributors in select markets outside the United States. We currently generate most of our revenue from the sales of Zephyr Valves and delivery catheters. We also generate a smaller amount of our revenue from our Chartis System, which is comprised of sales of the balloon catheters, usage fees and sales of the Chartis console. The StratX Platform, while used to identify patients eligible for treatment with Zephyr Valves, does not independently generate any revenue for us. No single customer accounted for more than 10% of our revenue during the years ended December 31, 2018 and December 31, 2019. No single customer accounted for more than 10% of our revenue during the six months ended June 30, 2019 and June 30, 2020.

Revenue from sales of our products fluctuates based on volume of cases (procedures performed), the average number of Zephyr Valves used for a patient, pricing, discounts, incentives and mix of U.S. and international sales. Our revenue also fluctuates and in the future will continue to fluctuate from quarter-to-quarter due to a variety of factors, including the availability of reimbursement, the size and success of our sales force, the number of hospitals and physicians who are aware of and perform the procedures using our solution and seasonality. Our revenue from international sales may also be impacted by fluctuations in foreign currency exchange rates between the U.S. dollar (our reporting currency) and the local currency.

Cost of Goods Sold and Gross Margin

Cost of goods sold consists primarily of payroll and personnel-related expenses for our manufacturing and quality assurance employees, costs related to materials, components and subassemblies, third-party costs, manufacturing overhead, equipment depreciation, charges for excess, obsolete and non-sellable inventories. Overhead costs include the cost of quality assurance, testing, material procurement, inventory control, operations supervision and management and an allocation facilities overhead cost, including rent and utilities. Cost of goods sold also includes depreciation expense for production equipment and certain direct costs such as those incurred for shipping our products and costs related to providing analysis services for patient scans. We record adjustments to our inventory valuation for estimated excess, obsolete and non-sellable inventories based on assumptions about future demand, past usage, changes to manufacturing processes and overall market conditions. We expect cost of goods sold to increase in absolute dollars to the extent more of our products are sold.

We calculate gross margin as gross profit divided by revenue. Our gross margin has been and will continue to be affected by a variety of factors, primarily by our manufacturing costs, pricing pressures and, to a lesser extent, the percentage of products we sell in the United States versus internationally and the percentage of products we sell to distributors versus directly to hospitals. Our gross margin is typically higher on products we sell directly to hospitals as compared to products we sell through distributors.

Our gross margin may increase over the long term to the extent our production volume increases as our fixed manufacturing costs would be spread over a larger number of units, thereby reducing our per-unit manufacturing costs. We expect our gross margin to fluctuate from period to period, however, based upon the factors described above and seasonality.

Operating Expenses

Our operating expenses have consisted solely of research and development costs and selling, general and administrative costs.

Research and Development Expenses

Our research and development activities primarily consist of engineering and research programs associated with our products under development and improvements to our existing products. Research and development expenses include payroll and personnel-related costs for our research and development employees, including expenses related to stock-based compensation for employees engaged in research and development, consulting services, clinical trial expenses, regulatory expenses, prototyping, testing, laboratory supplies, and an allocation of facility overhead costs. Our clinical trial expenses include costs associated with clinical trial design, clinical trial site development and study costs, data management costs, related travel expenses, the cost of products used for clinical activities, and internal and external costs associated with our regulatory compliance. We expense research and development costs as they are incurred. We expect our research and development expenses, including related stock-based compensation expense, to increase in absolute dollars as we hire additional personnel to develop new product offerings and product enhancements.

Selling, General and Administrative Expenses

Our selling, general and administrative expenses consist of payroll and personnel-related costs for our sales and marketing personnel, including sales variable compensation, travel expenses, consulting, public relations costs, direct marketing, customer training, trade show and promotional expenses, stock-based compensation and allocated facility overhead costs, and for administrative personnel that support our general operations such as information technology, executive management, financial accounting, customer services and human resources personnel. We expense sales variable compensation at the time of the sale. Selling, general and administrative expenses also include costs attributable to professional fees for legal and accounting services, insurance, consulting fees, recruiting fees, travel expense, bad debt expense and depreciation.

We intend to continue to increase the size of our sales force and our marketing spending to generate sales opportunities. We expect our sales and marketing expenses to increase in absolute dollars as we hire additional sales personnel and increase our sales support infrastructure and add additional marketing programs in order to more fully penetrate the global opportunity. We also expect our administrative expenses, including stock-based compensation expense, to increase as we increase our headcount and expand our facilities and information technology to support our operations as a public company. Additionally, we anticipate increased expenses related to audit, legal, regulatory and tax-related services associated with being a public company, compliance with exchange listing and Securities and Exchange Commission (SEC) requirements, director and officer insurance premiums and investor relations costs. We also expect to see an increase in our stock-based compensation expense with the establishment of a new equity plan associated with this offering and related grants either in the form of restricted stock units or options. Our selling, general and administrative expenses may fluctuate from period to period due to the seasonality of our business and as we continue to add direct sales territory managers in new territories.

Interest Expense and Income

Interest expense consists primarily of interest expense related to our term loan facilities and convertible notes, including amortization of debt discount and issuance costs. Interest income is predominantly derived from investing surplus cash in money market funds and short-term marketable securities.

Other Income (Expense), Net

Other income (expense), net primarily consists of changes in the fair value of our derivative liabilities, changes in the fair value of our outstanding preferred stock warrants and foreign currency exchange gains and losses. In February 2020, the warrants were partly exercised and partly expired. The final fair value of the warrant liability was reclassified to stockholders' (equity)/deficit and we will no longer record any related periodic fair value adjustment. We will continue to adjust the Success Fee derivative liability for changes in fair value at each balance sheet date until the payment of the success fee to Oxford upon the completion of our initial public offering, with any changes in fair value recognized in the consolidated statements of operations and comprehensive loss. We will continue to adjust the 2020 Notes derivative liability for changes in fair value at each balance sheet date until the 2020 Notes are converted or repaid, with any changes in fair value recognized in the consolidated statements of operations and comprehensive loss.

Results of Operations:

Comparison of the Six Months Ended June 30, 2019 and 2020

The following table summarizes our results of operations for the period indicated:

	Six Months Ended June 30, 2019	Six Months Ended June 30, 2020	$ Change	% Change
	(in thousands)			
Revenue	$ 13,144	$ 12,291	$ (853)	(6.5)%
Costs of goods sold	4,474	5,629	$ 1,155	25.8 %
Gross profit	8,670	6,662	(2,008)	(23.2)%
Operating expenses:				
Research and development	3,047	2,991	$ (56)	(1.8)%
Selling, general and administrative	15,558	21,301	$ 5,743	36.9 %
Total operating expenses	18,605	24,292	5,687	30.6 %
Loss from operations	(9,935)	(17,630)	(7,695)	77.5 %
Interest income	143	89	$ (54)	(37.8)%
Interest expense	(1,407)	(1,811)	$ (404)	28.7 %
Other income (expense), net	(373)	421	$ 794	212.9 %
Net loss before tax	(11,572)	(18,931)	(7,359)	63.6 %
Income tax expense	127	143	16	12.6 %
Net loss	$ (11,699)	$ (19,074)	$ (7,375)	63.0 %

Revenue

Revenue decreased by $0.9 million, or 6.5%, to $12.3 million during the six months ended June 30, 2020, compared to $13.1 million during the six months ended June 30, 2019. The decrease in revenue was due to the decrease and delay of substantially all procedures performed using our products for much of the three months ended June 30, 2020 as a result of the COVID-19 pandemic. As a result of the pandemic, the sale of products in international markets decreased by $4.3 million from $10.6 million for the six months ended June 30, 2019 to $6.3 million for six months ended June 30, 2020. Despite reductions resulting from the pandemic, the sale of products in the United States increased by $3.4 million from $2.6 million for the six months ended June 30, 2019 to $6.0 million for six months ended June 30, 2020. This increase reflects revenue growth in 2020 as we expanded the commercialization of our products in the United States.

Cost of Goods Sold and Gross Margin

Cost of goods sold increased by $1.2 million, or 25.8%, to $5.6 million during the six months ended June 30, 2020, compared to $4.5 million during the six months ended June 30, 2019. The increase was primarily due to investments in personnel and operational infrastructure to support anticipated future growth and lower manufacturing capacity utilization resulting from the response to the COVID-19 pandemic.

Research and Development Expenses

Research and development expenses decreased by less than $0.1 million, or 1.8%, to $3.0 million during the six months ended June 30, 2020, compared to $3.0 million during the year ended June 30, 2019. The decrease in research and development expenses was primarily due to a decrease of $0.4 million of costs associated with our clinical trials, including fees paid to contract research organizations (CROs) and clinical study sites due to lower clinical trial activity during the six months ended June 30, 2020. This decrease in expenses was partially offset by increases of $0.3 million in personnel and consulting costs during the same period as we invested in our personnel to support anticipated future growth.

Selling, General and Administrative Expenses

Selling, general and administrative expenses increased by $5.7 million, or 36.9%, to $21.3 million during the six months ended June 30, 2020, compared to $15.6 million during the six months ended June 30, 2019. This increase in selling, general and administrative expenses was primarily due to an increase of $3.0 million resulting from the write-off of deferred initial public offering costs, $2.1 million of payroll and personnel-related expenses for our sales and marketing personnel, an increase of $0.8 million of payroll and personnel-related expenses for our administrative personnel and an increase of $0.3 million in facilities, infrastructure and other expenses. Global travel related expenses decreased by $0.5 million due to the COVID-19 pandemic.

Interest Expense and Income

Interest expense increased by $0.4 million, or 28.7%, to $1.8 million during the six months ended June 30, 2020, compared to $1.4 million during the six months ended June 30, 2019 primarily due to an increase in borrowings due to additional borrowings under the CIBC Term Loan and the 2020 Notes partially offset by the repayment of the Oxford Term Loan. Interest income decreased by $0.1 million from the six months ended June 30, 2019 to the six months ended June 30, 2020.

Other Income (Expense), Net

Other income (expense), net increased by $0.8 million, or 212.9%, to $0.4 million during the six months ended June 30, 2020, compared to ($0.4 million) during the six months ended June 30, 2019, primarily due to a change in the fair value of the derivative liabilities.

Comparison of the Years Ended December 31, 2018 and December 31, 2019

The following table summarizes our results of operations for the period indicated:

	Years Ended December 31,			
	2018	2019	$ Change	% Change
	(in thousands)			
Revenue	$ 20,004	$ 32,595	$ 12,591	62.9 %
Costs of goods sold	7,718	10,181	$ 2,463	31.9 %
Gross profit	12,286	22,414	10,128	82.4 %
Operating expenses:				
Research and development	6,991	6,049	$ (942)	(13.5)%
Selling, general and administrative	20,347	34,203	$ 13,856	68.1 %
Total operating expenses	27,338	40,252	12,914	47.2 %
Loss from operations	(15,052)	(17,838)	(2,786)	18.5 %
Interest income	21	432	$ 411	—
Interest expense	(2,520)	(2,317)	$ 203	(8.1)%
Other income (expense), net	(916)	(617)	$ 299	(32.6)%
Net loss before tax	(18,467)	(20,340)	(1,873)	10.1 %
Income tax expense	12	363	351	—
Net loss	$ (18,479)	$ (20,703)	$ (2,224)	12.0 %

Revenue

Revenue increased by $12.6 million, or 62.9%, to $32.6 million during the year ended December 31, 2019, compared to $20.0 million during the year ended December 31, 2018. The increase in revenue was due to an increase in the sale of products in the United States by $10.1 million from $0.6 million for the year ended December 31, 2018 to $10.7 million for the year ended December 31, 2019 and an increase in the sale of products in international markets by $2.5 million from $19.4 million for the year ended December 31, 2018 to $21.9 million for the year ended December 31, 2019. We obtained FDA approval for the Zephyr Valves in the United States in June 2018 and began generating revenue in the United States in the third quarter of 2018. Overall, there was an increase in the number of units of products sold for the year ended December 31, 2019 as compared to the year ended December 31, 2018. Unit growth paralleled the growth in revenue dollars for 2019 while average selling prices maintained their 2018 levels showing a small improvement.

Cost of Goods Sold and Gross Margin

Cost of goods sold increased by $2.5 million, or 31.9%, to $10.2 million during the year ended December 31, 2019, compared to $7.7 million during the year ended December 31, 2018. The increase was primarily due to growth in sales volume and additional manufacturing overhead costs as we invested in our operational infrastructure to support anticipated future growth. Our gross margin increased from 61.4% for the year ended December 31, 2018 to 68.8% for the year ended December 31, 2019. The increase in gross margin was primarily due to lower fixed costs per unit from the increased sales volume of our products.

Research and Development Expenses

Research and development expenses decreased by $0.9 million, or 13.5%, to $6.0 million during the year ended December 31, 2019, compared to $7.0 million during the year ended December 31, 2018. The decrease in research and development expenses was primarily due to a decrease of $0.7 million of costs associated with our clinical trials, including fees paid to contract research organizations (CROs) and consulting costs due to lower clinical trial activity during the year ended December 31, 2019.

Selling, General and Administrative Expenses

Selling, general and administrative expenses increased by $13.9 million, or 68.1%, to $34.2 million during the year ended December 31, 2019, compared to $20.3 million during the year ended December 31, 2018. This increase in selling, general and administrative expenses was primarily due to an increase of $8.8 million of payroll and personnel-related expenses for our sales personnel, an increase of $1.0 million of payroll and personnel-related expenses for our administrative personnel, an increase of $2.0 million of professional fees for legal, consulting, accounting, tax and other services, an increase of $1.2 million of travel related expenses and $0.4 million of advertising and marketing materials.

Interest Expense and Income

Interest expense decreased by $0.2 million, or 8.1%, to $2.3 million during the year ended December 31, 2019, compared to $2.5 million during the year ended December 31, 2018 primarily due to lower interest on convertible note payable to a related party because our convertible debt from Boston Scientific Corporation (BSC) converted into shares of our Series G-1 preferred stock in April 2019. Interest income increased by $0.4 million from the year ended December 31, 2018 to the year ended December 31, 2019 primarily due to interest income on proceeds from issuance of Series G-1 preferred stock invested in cash equivalents and short-term marketable securities.

Other Income (Expense), Net

Other income (expense), net decreased by $0.3 million, or 32.6%, to $0.6 million during the year ended December 31, 2019, compared to $0.9 million during the year ended December 31, 2018, primarily due to lower net foreign exchange losses of $0.1 million.

Selected Quarterly Results of Operations

The following tables set forth selected unaudited quarterly consolidated statements of operations data for each of the quarters in the year ended December 31, 2019 and in the six months ended June 30, 2020. The information for each of these quarters has been prepared in accordance with U.S. generally accepted accounting principles (GAAP) and on the same basis as our audited financial statements included elsewhere in this prospectus and, in the opinion of management, reflect all adjustments, which include only normal and recurring adjustments, necessary for the fair presentation of our results of operations. This data should be read in conjunction with our financial statements and related notes included elsewhere in this prospectus. These historical unaudited quarterly operating results are not necessarily indicative of our operating results for the full year or any future period.

	Three Months Ended (unaudited)					
	March 31, 2019	June 30, 2019	September 30, 2019	December 31, 2019	March 31, 2020	June 30, 2020
	(in thousands)					
Revenue	$ 5,778	$ 7,366	$ 9,104	$ 10,347	$ 8,618	$ 3,673
Costs of goods sold	2,061	2,413	2,697	3,010	2,968	2,661
Gross profit	3,717	4,953	6,407	7,337	5,650	1,012
Operating expenses:						
Research and development	1,595	1,452	1,399	1,603	1,565	1,426
Selling, general and administrative	7,201	8,357	8,621	10,024	10,189	11,112
Total operating expenses	8,796	9,809	10,020	11,627	11,754	12,538
Loss from operations	(5,079)	(4,856)	(3,613)	(4,290)	(6,104)	(11,526)
Interest income	—	143	167	122	74	15
Interest expense	(876)	(531)	(460)	(450)	(899)	(912)
Other income (expense), net	(112)	(261)	(340)	96	(147)	568
Net loss before tax	(6,067)	(5,505)	(4,246)	(4,522)	(7,076)	(11,855)
Income tax expense	61	66	89	147	87	56
Net loss	$ (6,128)	$ (5,571)	$ (4,335)	$ (4,669)	$ (7,163)	$ (11,911)

Liquidity and Capital Resources; Plan of Operation

To date, we have financed our operations primarily through private placements of equity securities, debt financing arrangements and sales of our products. As of June 30, 2020, we had cash and cash equivalents of $43.3 million, an accumulated deficit of $229.6 million, and $16.7 million outstanding under the CIBC Term Loan, net of debt discount, and $29.3 million outstanding under the 2020 Notes, net of debt discount. Interest on the 2020 Notes is accrued and is payable on maturity or in case of conversion of the 2020 Notes, the accrued interest will convert into shares of Series G-1 preferred stock. As of June 30, 2020, the accrued interest on our 2020 Notes was $0.4 million.

Oxford Term Loan

From August 2014 until February 2020, we were party to a Loan and Security Agreement with Oxford (Oxford Agreement), which provided us with the ability to borrow up to $20.0 million in term loans. The Oxford Agreement included a floating interest rate tied to LIBOR and included customary representations and warranties, restrictive covenants, events of default and other customary terms and conditions. As of December 31, 2019, the Company was in default with a covenant in the Oxford Agreement resulting from its failure to maintain cash balances outside the United States within the levels set forth in the Oxford Agreement. This event of default was waived by Oxford. The loan was collateralized by a first-priority lien on substantially all of our assets, including cash and cash equivalents, accounts receivable, intellectual property and equipment.

In May 2017, we entered into an amendment to the Oxford Agreement, and in May 2018 we entered into two additional amendments. Each of the amendments extended the “interest only period” under the loan, during which the loan accrued interest, but were not required to make principal payments.

In connection with the closing of the Oxford Agreement in August 2014, we also entered into a Success Fee Agreement, which requires us to pay up to $2.5 million (the Success Fee) in the event of a sale or other disposition by us of all or substantially all of our assets, a merger or consolidation or an initial public offering (a Liquidity Event), in each case before August 28, 2021. This agreement has been identified as a freestanding derivative under Financial Accounting Standards Board (FASB) Accounting Standards Codification Topic 815 (ASC 815), and is remeasured to its fair value at the end of each reporting period and any change in fair value is recognized as change in fair value of derivative liability in the statements of operations and comprehensive loss. We borrowed a total of $15.0 million principal amount of term loans under the Oxford Agreement, which based on the formula in the Success Fee Agreement, will obligate us to pay a Success Fee of $1.9 million on the closing of this offering.

In 2018 and 2019, we recorded interest expense on the term loan of $1.7 million and $1.7 million, respectively. In the six months ended June 30, 2019 and 2020, we recorded interest expense on the term loan of $0.9 million and $0.4 million, respectively.

We had incurred fees and legal expenses of $0.1 million in connection with the Oxford Agreement and related Amendments, which were recorded as deferred financing costs and amortized to interest expense. We also paid $0.2 million in fees to Oxford which is reflected as a discount on the debt and was being accreted over the life of the term loan. In 2018 and 2019, we recorded interest expense related to deferred financing and debt issuance costs of less than $0.1 million and less than $0.1 million, respectively. In the six months ended June 30, 2019 and 2020, we recorded interest expense related to deferred financing and debt issuance costs of less than $0.1 million and less than $0.1 million, respectively.

In February 2020, we terminated and paid off in full $17.3 million, including outstanding loan amount of $15.0 million, final payment of $1.3 million, amendment fees of $0.9 million and accrued interest of $0.1 million, outstanding under the Oxford Agreement. The repayment of the loans under the Oxford Agreement was accounted as extinguishment and the Company recorded a loss on debt extinguishment of $0.4 million. All of our obligations under the Oxford Agreement have been terminated except the indemnity obligation thereunder, which by their terms survive the facility. The Success Fee Agreement also remains in full force and effect.

Loan and Security Agreement with BSC

From May 2017 until January 2020, we were party to a Second Lien Loan and Security Agreement with BSC (BSC Agreement), which provided us with the ability to borrow up to $30.0 million in term loans. The BSC Agreement included a fixed interest rate of 8.96% and included customary representations and warranties, restrictive covenants, events of default and other customary terms and conditions.

The BSC Agreement provided for principal and accrued interest on the loans to convert into our stock at BSC’s option upon completion by us of any Qualified Equity or Debt Financing, or the occurrence of any Change of Control or Liquidation (each term as defined in the BSC Agreement).

In conjunction with the BSC Agreement, we and BSC entered into a No Shop Agreement such that from the date of execution of the agreement through the earlier of ten days following receipt by BSC of a letter confirming our submission of the final module of our PMA application to the FDA and March 31, 2018, we would not sign a term sheet or engage in discussions to sell our company. The No Shop Agreement terminated in 2018.

In addition, BSC’s Right of First Negotiation, originally received as part of BSC’s investment in our Series F-1 Preferred Stock, was amended to shorten the period it has to exercise its Right of First Negotiation from ten to five business days, and to shorten the exclusive negotiation period from 75 to 45 days with respect to the initial notice from us that we intend to pursue a change in control or an initial public offering. For subsequent notices from us, BSC has ten days to exercise its right of first negotiation, and 75 days to enter into definitive agreements for a change in control transaction. We have provided an initial notice to BSC of our intention to pursue this initial public offering and BSC has declined to exercise its Right of First Negotiation. BSC's Right of First Negotiation will terminate in connection with the closing of this offering.

We borrowed $6.0 million in 2017, $12.0 million in 2018 and $6.0 million in January 2019 under the BSC Agreement.

We incurred fees and legal expenses of $0.1 million in connection with the BSC Agreement, which are reported on the balance sheet as a direct deduction from the face amount of the convertible note. Amortization of the issuance costs are calculated using the effective interest rate method over the term of the note and recorded as a non-cash interest expense. In 2018, we recorded interest expense of $0.8 million.

In April 2019, all outstanding indebtedness and accrued interest under the BSC Agreement converted into shares of our Series G-1 preferred stock. At December 31, 2019, we retained the ability to draw up to an additional $6.0 million under the BSC Agreement until the maturity date in May 2022. We terminated the BSC Agreement in January 2020, which terminated all of our obligations under the BSC Agreement except the indemnity obligation thereunder, which by their terms survive the facility.

CIBC Term Loan

On February 20, 2020, we executed a Loan and Security Agreement with Canadian Imperial Bank of Commerce (CIBC), which we subsequently amended on April 17, 2020 (as amended, the CIBC Agreement). The CIBC Agreement provided us with the ability to borrow up to $32.0 million in debt financing consisting of $17.0 million advanced at the closing of the agreement (Tranche A), with the option to draw up to an additional $8.0 million (Tranche B) on or before February 20, 2022 and an additional $7.0 million (Tranche C) on or before February 20, 2022. Tranche B is conditioned upon achieving a trailing six-month revenue of at least $15.0 million as of the date of any Tranche B Borrowing, and Tranche C is conditioned upon achieving a trailing six-month revenue of at least $20.0 million as of the date of any Tranche C borrowing. The availability of Tranche B and Tranche C is further conditioned upon the joining of Pulmonx International Sàrl to the CIBC Agreement and the execution by Pulmonx International Sàrl of Swiss-law collateral documentation in favor of CIBC.

The loan will mature on March 15, 2022. However, the loan's maturity will automatically be extended to February 20, 2025 if we amend the 2020 Notes such that the 2020 Notes mature on May 21, 2025 or later or if all of the convertible notes are converted to preferred stock, in each case prior to March 1, 2022 and if no event of default exists under the CIBC Agreement. Equal monthly principal payments will begin after a 24-month interest only grace period. The interest only grace period can extend to 36 months if we achieve three-month trailing revenue of at least $20.0 million as of February 20, 2022.

The loan bears interest at a floating rate equal to 1.0% above the Wall Street Journal Prime Rate at any time. The Tranche C loan will bear interest at a floating rate equal to 1.5% above the Wall Street Journal Prime Rate at any time. The loan is collateralized by substantially all of our assets, including cash and cash equivalents, accounts receivable, intellectual property and equipment. We may prepay the loan, subject to certain requirements. The CIBC Agreement includes customary restrictive covenants, financial covenants, events of default and other customary terms and conditions.

2020 Notes

In April 2020, we issued and sold the 2020 Notes in the aggregate principal amount of $33.0 million. We have the option to call up to an additional $33.0 million for a maximum aggregate amount of $66.0 million, subject to customary closing conditions, provided that any such call be for no less than $5.0 million on or prior to April 17, 2022. The 2020 Notes accrue interest at a rate equal to 2.0% above the Wall Street Journal Prime Rate. All unpaid interest and principal will be due and payable upon request of the majority of lenders (Majority Holders) on or after the earlier of April 17, 2022 or an event of default. The Company may prepay the 2020 Notes prior to April 17, 2022 only with the consent of the Majority Holders.

In the event that we issue and sell shares of preferred stock to investors with total proceeds of not less than $30.0 million (excluding the conversion of the 2020 Notes or other convertible securities issued for capital raising purposes) (a Qualified Financing), then the outstanding principal amount of the 2020 Notes and any unpaid accrued interest shall automatically convert into the same class and series of preferred stock sold in the Qualified Financing at a conversion price equal to the lesser of (i) the price per share paid for preferred stock in the Qualified Financing multiplied by either 85% if the conversion takes place within 18 months of the execution of the 2020 Notes' Note Purchase Agreement (the Initial Closing), or 80% otherwise, and (ii) $13.20 per share.

In the event that we sell shares of preferred stock in a transaction that does not constitute a Qualified Financing (a Non-Qualified Financing), then the Majority Holders will have the option to treat such Non-Qualified Financing as a Qualified Financing; provided, that, the Majority Holders may not elect to convert the 2020 Notes held by any holder of the 2020 Notes whose aggregate maximum loan amount is equal to or greater than $20.0 million (each, a Significant Holder) in the Non-Qualified Financing without such Significant Holder's consent unless such Non-Qualified Financing (a) is led by an investor who is not currently our stockholder and (ii) raises at least $10.0 million in total proceeds from investors who are not currently our stockholder. If there is an event of default, then the conversion of the 2020 Notes will be at a conversion price equal to the lesser of:

a. the price per share paid for the preferred stock by the investors in the Non-Qualified Financing multiplied by 75%, and

b. the Series G-1 preferred stock conversion price of $13.20 per share multiplied by 75%.

Upon an initial public offering which results in net proceeds of not less than $30.0 million (a Qualified IPO), the outstanding 2020 Notes and any unpaid accrued interest shall automatically convert in whole into shares of our common stock at a conversion price equal to the lesser of (i) price per share paid for common stock in the Qualified IPO multiplied by either 85% if the conversion takes place within 18 months of the Initial Closing, or 80% otherwise, and (ii) $13.20 per share.

Upon an initial public offering that does not constitute a Qualified IPO (a Non-Qualified IPO), the Majority Holders shall have the option to treat such Non-Qualified IPO as a Qualified IPO; provided that if there is an event of default, conversion of the 2020 Notes will be at a conversion price equal to the lesser of:

a. the price per share paid for common stock in the Non-Qualified IPO multiplied by 75%, and

b. the Series G- 1 preferred stock conversion price of $13.20 per share multiplied by 75%.

At any other time upon the election of the Majority Holders or a Significant Holder, the outstanding principal amount of the 2020 Notes and any unpaid accrued interest will convert in whole into our Series G-1 preferred stock at the Series G-1 conversion price of $13.20 per share. If there is an event of default prior to selection of such option, the 2020 Notes will be converted at a conversion price equal to the Series G-1 preferred stock conversion price of $13.20 per share multiplied by 75%.

Upon any event of default, the Majority Holders can, by providing us with a written notice, declare the principal and unpaid accrued interest under the 2020 Notes immediately due and payable.

The 2020 Notes include embedded derivatives that are required to be bifurcated from the 2020 Notes and accounted for separately as a single, compound embedded derivative instrument under ASC 815, *Derivatives* (2020 Notes derivative liability). We determined that the share settled redemption in the case of a financing or an IPO discussed above represents an embedded derivative that is not clearly and closely related to the debt host and have accounted for these settlement alternatives as separate embedded derivative liability. The fair value of the 2020 derivative liability of $3.9 million was recorded on the issuance date of the 2020 Notes resulting in a debt discount, which is reported as a direct deduction from the face amount of the 2020 Notes. The 2020 derivative liability is remeasured to its fair value at the end of each reporting period and any change in fair value is recognized in other income (expense), net in the statements of operations and comprehensive loss. The fair value of the 2020 derivative liability as of June 30, 2020 was $3.3 million.

We incurred debt issuance costs of $0.1 million in connection with the 2020 Notes Agreement, which are reported on the balance sheet as a direct deduction from the face amount of the 2020 Notes.

Debt discount of $0.1 million is amortized using the effective interest rate method over the term of the note and recorded as a non-cash interest expense.

During the six months ended June 30, 2020, the Company recorded interest expense of $0.7 million on the 2020 Notes. As of June 30, 2020, the 2020 Notes had an annual effective interest rate of 12.33% per year. The accrued interest on the 2020 Notes of $0.4 million is included in accrued liabilities on the condensed consolidated balance sheet as of June 30, 2020.

Our obligations with respect to the 2020 Notes are unsecured and subordinated to our obligations with respect to the CIBC Loan. The 2020 Notes include customary events of default.

Upon the closing of this offering, the 2020 Notes, including accrued interest thereon, will automatically convert into a number of shares of common stock at a per share conversion price equal to the lesser of (i) 85% of the initial public offering price and (ii) $13.20 per share.

Credit Agreement

In April 2020, Pulmonx International Sàrl, our wholly-owned subsidiary, entered into a COVID-19 Credit Agreement with UBS Switzerland AG to receive up to 0.5 million Swiss Francs ($0.5 million U.S. dollar equivalent) under Swiss Federal Government program to mitigate the economic impact of the spread of the coronavirus. In May 2020, Pulmonx International Sàrl received 0.5 million Swiss Francs ($0.5 million U.S. dollar equivalent) under the COVID-19 Credit Agreement. The COVID-19 Credit Agreement will bear no interest and is payable within 60 months after receipt of funds. As of June 30, 2020, Pulmonx International Sàrl did not make any repayment of credit agreement.

Paycheck Protection Program

The Company determined that the original eligibility requirements per the guidelines originally established by the U.S. federal government as part of the CARES Act for the Paycheck Protection Program (the PPP) were met. As such, on April 16, 2020, the Company received $2.7 million in support from the PPP. Because the U.S. government subsequently changed its position and guidelines related to the PPP and publicly traded companies, the Company repaid the loan on May 1, 2020.

Funding Requirements

We expect to incur continued expenditures in the future in support of our commercial infrastructure, sales force and other commercialization efforts. In addition, we intend to continue to make investments in the development of our products, including ongoing research and development programs. We also expect to incur additional costs associated with operating as a public company. Lastly, we may also undertake additional expenses to further expand our commercial organization and efforts, enhance our research and development efforts and pursue product expansion opportunities.

As of June 30, 2020, we had cash and cash equivalents of $43.3 million. Based on our current planned operations, we expect that the anticipated proceeds of this offering, together with our cash, cash equivalents and short-term marketable securities will enable us to fund our operating expenses for at least 12 months from the date hereof. We have based these estimates on assumptions that may prove to be wrong, and we could utilize our available capital resources sooner than we expect.

However, our management has concluded that our history of recurring losses and anticipated expenditures for operating and investing activities raise substantial doubt about our ability to continue as a going concern. See Note 1 to our consolidated financial statements appearing at the end of this prospectus for additional information on our conclusion. Similarly, the report of our independent registered public accounting firm on our consolidated financial statements as of and for the year ended December 31, 2019 included an explanatory paragraph indicating that there is substantial doubt about our ability to continue as a going concern. See "Risk Factors—Risks Related to Our Business and Strategy—Our history of recurring losses and anticipated expenditures raise substantial doubts about our ability to continue as a going concern. Our ability to continue as a going concern requires that we obtain sufficient funding to finance our operations" for further information.

Because of the numerous risks and uncertainties associated with research, development and commercialization of medical devices, we are unable to estimate the exact amount of our working capital requirements. Our future funding requirements will depend on many factors, including:

- the costs of commercialization activities related to commercializing our products in the United States and elsewhere, including expanding territories, increasing sales and marketing personnel, actual and anticipated product sales, marketing programs, manufacturing and distribution costs;
- the impact of the COVID-19 pandemic on our business;
- the cost of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights;
- the research and development activities we intend to undertake, product enhancements that we intend to pursue;
- whether or not we pursue acquisitions or investments in businesses, products or technologies that are complementary to our current business;
- the degree and rate of market acceptance of our products in the United States and elsewhere;
- changes or fluctuations in our inventory supply needs and forecasts of our supply needs;
- our need to implement additional infrastructure and internal systems;
- our ability to hire additional personnel to support our operations as a public company; and
- the emergence of competing technologies or other adverse market developments.

Until such time, if ever, as we can generate product revenue sufficient to achieve profitability, we expect to finance our cash needs through a combination of public or private equity offerings, debt financings and collaborations or licensing arrangements. There can be no assurance that our efforts to procure additional financing will be successful or that, if they are successful, the terms and conditions of such financing will be favorable to us or our stockholders. If we do raise additional capital through public or private equity or convertible debt offerings, the ownership interest of our existing stockholders will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect our stockholders' rights. If we raise additional capital through debt financing, we may be subject to covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. If we raise additional capital through collaborations agreements, licensing arrangements or marketing and distribution arrangements, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates or grant licenses that may not be favorable to us. If we are unable to raise capital when needed, we will need to delay, limit, reduce or terminate planned commercialization or product development activities, or grant rights to develop and commercialize products or product candidates that we would otherwise prefer to develop and market ourselves in order to reduce costs.

Summary Statement of Cash Flows

The following table sets forth the primary sources and uses of cash and cash equivalents for the period presented below:

	Years Ended December 31,		Six Months Ended June 30,	
	2018	2019	2019	2020
	(in thousands)		(in thousands)	
Net cash (used in) provided by:				
Operating activities	$ (18,394)	$ (20,765)	$ (13,051)	$ (17,542)
Investing activities	200	(14,233)	(156)	13,463
Financing activities	12,114	45,619	45,728	32,707
Effect of exchange rate changes on cash and cash equivalents	154	22	17	183
Net increase (decrease) increase in cash and cash equivalents	$ (5,926)	$ 10,643	$ 32,538	$ 28,811

Cash Flows from Operating Activities

Net cash used in operating activities was $13.1 million for the six months ended June 30, 2019. Cash used in operating activities was primarily a result of the net loss of $11.7 million, an increase in accounts receivable of $1.9 million primarily due an increase in sales, an increase in inventory of $1.3 million primarily due to higher inventory levels required to support higher sales and projected increase in sales, an increase in lease liabilities of $0.4 million partially offset by non-cash charges of $0.3 million for change in fair value of derivative liabilities, $0.2 million for inventory write-downs due to obsolescence, $0.2 million for depreciation and amortization expense, and $0.4 million for non-cash lease expense, a decrease in prepaid expenses and other current assets of $0.2 million, an increase in accrued liabilities of $0.6 million, and an increase in accounts payable of $0.3 million. The increases in accrued liabilities and accounts payable is primarily due to increases in inventory, an increase in manufacturing, selling, general and administrative expenses and timing of payments to our vendors.

Net cash used in operating activities was $17.5 million for the six months ended June 30, 2020. Cash used in operating activities was primarily a result of the net loss of $19.1 million, an increase in inventory of $3.1 million due to continued production to build inventory despite lower sales during the COVID-19 pandemic, a decrease of $0.8 million in accounts payable, a decrease in accrued liabilities of $1.7 million, an increase in lease liabilities of $0.2 million, and a non-cash credit resulting from the change in the fair value of derivative liabilities of $0.7 million partially offset by a decrease in accounts receivable of $2.9 million due to lower sales, a decrease in prepaid expenses and other current assets of $0.3 million, a decrease in other assets of $0.2 million, and non-cash charges for write-off of deferred offering costs of $3.0 million as we withdrew our registration statement for our initial public offering, stock-based compensation expense of $0.4 million, write-down of inventory due to obsolescence of $0.3 million, depreciation and amortization expense of $0.2 million, amortization of debt discount and debt issuance costs of $0.4 million, and non-cash lease expense of $0.5 million. The decreases in accounts payable, accrued liabilities, prepaid expenses and other current assets was due to timing of payments to our vendors and reduced activity related to the initial public offering after we withdrew our registration statement in May 2020.

Net cash used in operating activities was $18.4 million for the year ended December 31, 2018. Cash used in operating activities was primarily a result of the net loss of $18.5 million, an increase in accounts receivable of $0.3 million due to an increase in sales, an increase in inventory of $1.2 million to support projected increases in sales, a decrease in accounts payable of $0.6 million due to timing of payments to vendors, a decrease in deferred tax liability of $0.2 million, a decrease of $0.1 million in deferred rent liability partially offset by, an increase in accrued liabilities of $0.9 million due to timing of payments to vendors, change in the fair value of the derivative liability of $0.6 million, depreciation and amortization expense of $0.3 million, stock-based compensation expense of $0.4 million and write down of inventory due to obsolescence of $0.3 million.

Net cash used in operating activities was $20.8 million for the year ended December 31, 2019. Cash used in operating activities was primarily a result of the net loss of $20.7 million, an increase in accounts receivable of $2.5 million primarily due an increase in sales, an increase in inventory of $2.6 million primarily due to higher inventory levels required to support higher sales and projected increase in sales and an increase in prepaid and other current assets of $0.7 million partially offset by, an increase in accrued liabilities of $3.4 million, an increase in accounts payable of $0.5 million, a change in the fair value of the derivative liability of $0.5 million, depreciation and amortization expense of $0.4 million, stock-based compensation expense of $0.4 million and a write down of inventory due to obsolescence of $0.3 million. The increases in prepaid expenses and other current assets, accrued liabilities and accounts payable is primarily due to increases in inventory, an increase in manufacturing, selling, general and administrative expenses and timing of payments to our vendors.

Cash Flows from Investing Activities

Net cash used in investing activities in the six months ended June 30, 2019 was $0.2 million for the purchases of property and equipment.

Net cash provided by investing activities in the six months ended June 30, 2020 was $13.5 million consisting of proceeds from the maturity of short-term marketable securities of $13.6 million offset by purchases of property and equipment of $0.1 million.

Net cash provided by investing activities in the year ended December 31, 2018 was $0.2 million primarily consisting of maturities of investments of $0.5 million, offset by the purchases of property and equipment of $0.3 million.

Net cash used in investing activities in the year ended December 31, 2019 was $14.2 million primarily consisting of purchases of short-term marketable securities of $21.5 million and purchases of property and equipment of $0.7 million offset by maturities of investments of $7.9 million.

Cash Flows from Financing Activities

Net cash provided by financing activities in the six months ended June 30, 2019 of $45.7 million primarily relates to proceeds of $6.0 million from additional borrowing under the BSC Agreement and proceeds of $39.7 million from issuance of Series G-1 preferred stock, net of issuance costs and proceeds of $0.1 million from the exercise of stock options.

Net cash provided by financing activities in the six months ended June 30, 2020 of $32.7 million primarily relates to proceeds of $16.8 million from borrowing under the CIBC Agreement, net of lender fees and costs, proceeds of $33.0 million from the issuance of 2020 Notes, net of lender fees and costs, proceeds of $2.3 million from the exercise of warrants for Series C-1 preferred stock, proceeds of $0.5 million under the COVID-19 Credit Agreement partially offset by repayment of debt obligations of $17.2 million under the Oxford Agreement, payment of deferred offering costs of $2.5 million and payment of debt issuance cost of $0.2 million.

Net cash provided by financing activities in the year ended December 31, 2018 of $12.1 million primarily relates to proceeds of $12.0 million from additional borrowings under the BSC Agreement and proceeds of $0.1 million from the exercise of stock options and preferred stock warrants.

Net cash provided by financing activities in the year ended December 31, 2019 of $45.6 million primarily relates to proceeds of $6.0 million from the issuance of the convertible note to BSC, proceeds of $39.7 million from issuance of Series G-1 preferred stock, net of issuance costs and $0.5 million proceeds from the exercise of stock options offset by payment of deferred offering costs of $0.6 million.

Contractual Obligations and Commitments

The following table summarizes our contractual obligations as of December 31, 2019:

	Payments Due by Period (in thousands)				
	Less than 1 year	1-3 years	3-5 years	More than 5 years	Total
Lease obligations[1]	$ 1,193	$ 4,757	$ 2,700	$ —	$ 8,650
Long-term debt obligations[2]	10,699	7,652	—	—	18,351
	$ 11,892	$ 12,409	$ 2,700	$ —	$ 27,001

(1) We lease our laboratory and office facilities in Redwood City, California and Neuchâtel, Switzerland under non-cancelable operating leases with expiration dates in July 2025 and January 2020, respectively. We had an option to extend the lease of the facility in Neuchâtel, Switzerland through January 2022 by providing notice to the landlord by the end of January 2019, which was not exercised by us. Per the terms of the lease, if the option to extend is not exercised, the lease remains in force and can be terminated with a 12-month's notice. The minimum lease payments above do not include any related common area maintenance charges or real estate taxes. In April 2020, the Company executed a sublease for another office facility in Redwood City, California for a three-year term commencing on June 1, 2020. In September 2020, the Company executed an amendment to this sublease to add an additional facility. The sublease agreement, as amended, terminates in May 2024, and provides for an early termination option applicable only to the 200 Chesapeake Drive facility beginning in 2022.

(2) In April 2019, all convertible promissory notes converted into shares of our Series G-1 preferred stock. At December 31, 2019, we retained the ability to draw up to an additional $6.0 million under the BSC Agreement until the maturity date in May 2022. We terminated the BSC Agreement in January 2020. As of December 31, 2019, we had $15.0 million of principal balance outstanding under the Oxford Agreement. In February 2020, we terminated and paid off in full all amounts outstanding under the Oxford Agreement. In February 2020, we received $17.0 million gross proceeds from the CIBC Loan. In April 2020, we received $33.0 million in gross proceeds from the issuance of the 2020 Notes. We have the option to draw up to an additional $33.0 million of 2020 Notes, provided that any such draw be for no less than $5.0 million on or prior to April 17, 2022.

We enter into contracts in the normal course of business with third-party contract organizations for pre-clinical studies and testing, manufacture and supply of our pre-clinical materials and providing other services and products for operating purposes. These contracts generally provide for termination following a certain period after notice, and therefore we believe that our non-cancelable obligations under these agreements are not material.

Off-Balance Sheet Arrangements

Through June 30, 2020, we did not have any relationships with unconsolidated organizations or financial partnerships, such as structured finance or special purpose entities that would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes.

Critical Accounting Policies, Significant Judgments and Use of Estimates

Our financial statements have been prepared in accordance with GAAP. The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses incurred during the reporting periods. Our estimates are based on our knowledge of current events and actions we may undertake in the future and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may materially differ from these estimates under different assumptions or conditions. We believe that the accounting policies discussed below are critical to understanding our historical and future performance, as these policies relate to the more significant areas involving management's judgments and estimates. For more detail on our critical accounting policies, refer to Note 2 to the financial statements appearing elsewhere in this prospectus.

Revenue Recognition

Our revenue is generated from the sale of our products to distributors and hospitals in the U.S. and international markets. Revenue is measured as the amount of consideration we expect to receive in exchange for transferring the products. Revenue is recognized when obligations under the terms of a contract with customers are satisfied, which occurs with the transfer of control of our products to our customers, either upon shipment of the product or delivery of the products to the customer under the terms and conditions agreed with the customer. We defer revenue relating to any remaining performance obligations by us to the customer after delivery, such as free products and free analysis services of patient scans to determine suitability of the patients for the treatment using the Zephyr Valves.

We identify performance obligations in contracts with customers, which may include our products and implied promises to provide free products and analysis services for patient scans. The transaction price is determined based on the amount expected to be entitled to in exchange for transferring the promised services or product to the customer. We are entitled to the total consideration for the products ordered by customers, net of early pay discounts, volume-based rebates and other transaction price adjustments. We exclude taxes assessed by governmental authorities on revenue-producing transactions from the measurement of the transaction price. We accept product returns at our discretion or if the product is defective as manufactured. We elected to treat shipping and handling costs as a fulfillment cost and include them in the cost of goods sold as incurred.

Inventories

Inventories are valued at the lower of cost to purchase or manufacture the inventory or net realizable value. Cost is determined using the first-in, first-out method for all inventories. Net realizable value is determined as the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal and transportation. We record write-downs of inventories which are obsolete or in excess of anticipated demand or market value based on consideration of product lifecycle stage, technology trends, product development plans and assumptions about future demand and market conditions. Inventory write-downs are intended to reduce the carrying value of inventory to its net realizable value.

Research and Development

Research and development expenses consist of costs incurred to further our research and development activities and include compensation costs, stock-based compensation, engineering and research expenses, clinical trials and related expenses, regulatory expenses, manufacturing expenses incurred to build products for testing, allocated facilities costs, consulting fees and other expenses incurred to sustain our overall research and development programs. All research and development costs are expensed as incurred.

Clinical trial costs are a significant component of our research and development expenses. We have a history of contracting with third parties that perform various clinical trial activities on our behalf in the ongoing development of our product candidates. The financial terms of these contracts are subject to negotiations and may vary from contract to contract and may result in uneven payment flow. We accrue and expense costs of our clinical trial activities performed by third parties, including CROs and other service providers, based upon estimates of the work completed over the life of the individual study in accordance with associated agreements. We determine these estimates through discussion with internal personnel and outside service providers as to progress or stage of completion of trials or services pursuant to contracts with clinical research organizations and other service providers and the agreed-upon fee to be paid for such services.

Preferred Stock

We record all shares of preferred stock at their respective fair values on the dates of issuance, net of issuance costs. Our preferred stock is recorded outside of permanent equity because while it is not mandatorily redeemable, in certain events considered not solely within our control, such as a merger, acquisition or sale of all or substantially all of our assets, each of which we refer to as a deemed liquidation event, our preferred stock will become redeemable at the option of the holders of at least a majority of the then outstanding such shares. We have not adjusted the carrying values of the preferred stock to its liquidation preference because a deemed liquidation event obligating us to pay the liquidation preferences to holders of shares of preferred stock is not probable. Subsequent adjustments to the carrying values to the liquidation preferences will be made only when it becomes probable that such a deemed liquidation event will occur.

Preferred Stock Warrants

We have issued freestanding warrants to purchase shares of preferred stock. We accounted for these warrants as a liability in our financial statements because the underlying instrument into which the warrants are exercisable contains deemed liquidation provisions that are outside our control. The warrants were recorded at fair value using an option pricing model based on an allocation of our aggregate value to the outstanding equity instruments, applying a discount to the warrant value for lack of marketability. The warrants were subject to remeasurement at each balance sheet date with any changes in fair value being recognized as a component of other income (expense), net in the statements of operations and comprehensive loss. We continued to adjust the liability for changes in fair value until the exercise or expiration of the preferred stock warrants in February 2020 (see Note 16 to our consolidated financial statements) at which time the related final fair value of the warrant liability will be reclassified to stockholders' deficit.

Derivative Instruments

In connection with the Oxford Agreement, we entered into the Success Fee Agreement. In the event of a sale or other disposition by the Company of all or substantially all of its assets, a merger or consolidation, or an initial public offering (a Liquidity Event), before the termination of the agreement on August 28, 2021, we are required to pay up to $2.5 million to Oxford Finance LLC. The Success Fee is equal to 6.25% of the term loan if the Liquidity Event occurs within 18 months of August 28, 2014, 8.75% if the Liquidity Event occurs after 18 months and within 3 years of August 28, 2014, and 12.50% if the Liquidity Event occurs after the third anniversary of August 28, 2014. As of December 31, 2019 and June 30, 2020, the maximum amount of Success Fee subject to a potential payout is $1.9 million. This agreement has been identified as a freestanding derivative under ASC 815, *Derivatives* ("Success Fee") and is remeasured to its fair value at the end of each reporting period and any change in fair value is recognized as change in other income (expense), net in the statements of operations and comprehensive loss (Note 4 to our consolidated financial statements).

We valued the Success Fee derivative liability based on the Success Fee amount of $1.9 million and the probability and estimated timing of a Liquidity Event. The probability of occurrence of a Liquidity Event was estimated to be up to 65% and 60% before the expiration of the agreement as of December 31, 2019 and June 30, 2020, respectively. Changes in the estimated probability may result in an increase or decrease in the fair value of the derivative liability.

The 2020 Notes include embedded derivatives that are required to be bifurcated from the 2020 Notes and accounted for separately as a single, compound embedded derivative instrument under ASC 815, *Derivatives* (2020 Notes derivative liability). We determined that the share settled redemption in the case of a financing or an IPO represents an embedded derivative that is not clearly and closely related to the debt host and have accounted for these settlement alternatives as separate embedded derivative liability. The fair value of the 2020 derivative liability of $3.9 million was recorded on the issuance date of the 2020 Notes resulting in a debt discount, which is reported as a direct deduction from the face amount of the 2020 Notes. The 2020 derivative liability is remeasured to its fair value at the end of each reporting period and any change in fair value is recognized in other income (expense), net in the statements of operations and comprehensive loss.

We valued the 2020 Notes derivative liability using the "with and without" methodology. The "with and without" methodology involves valuing the convertible note on an as is basis and then valuing the 2020 Notes without each individual embedded derivative. The difference between the value of the 2020 Notes with the embedded derivatives and the value without each individual embedded derivative equals the fair value of that embedded derivative. We used a Monte Carlo Simulation ("MCS") to value the embedded derivatives. The first step of each simulation was to forecast our Series G-1 preferred stock price through the expiration of the 2020 Notes. In order to estimate the future share price of the Series G-1 preferred stock, we applied a “random walk” model based upon a Geometric Brownian Motion process with a constant drift.

The fair value of the 2020 Notes derivative liability was determined using the following assumptions:

	April 17 2020	June 30 2020
Risk-free interest rate	0.2 %	0.2 %
Current Series G-1 convertible preferred stock value per share	$ 0.84	$ 0.85
Series G-1 convertible preferred stock volatility	34.4 %	32.5 %

Common Stock Valuation and Stock-Based Compensation

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

Up to December 31, 2018, the value of equity instruments issued to non-employees was determined on the earlier of the date on which there first existed a firm commitment for performance by the provider of goods and services or on the date performance is complete, using the Black-Scholes option pricing model. Therefore, the measurement of stock-based compensation issued to non-employees was subject to periodic adjustment as the underlying equity instruments vested. Stock-based compensation expense related to stock options granted to non-employees was recognized as the stock options are earned. Upon adoption of ASU 2018-07 for the periods after January 1, 2019, the Company accounts for shared-based awards granted to non-employees based on the fair value on the date of grant and recognizes compensation expense for those awards over the requisite service period, which is generally the vesting period of the respective award.

Estimates of the fair value of equity awards as of the grant date using valuation models such as the Black-Scholes option pricing model are affected by assumptions with a number of complex variables. Changes in the assumptions can materially affect the fair value and ultimately the amount of stock-based compensation expense recognized. These inputs are subjective and generally require significant analysis and judgment to develop. Changes in the following assumptions can materially affect the estimate of the fair value of stock-based compensation:

- *Expected Term.* The expected term is calculated using the simplified method, which is available where there is insufficient historical data about exercise patterns and post-vesting employment termination behavior. The simplified method is based on the vesting period and the contractual term for each grant, or for each vesting-tranche for awards with graded vesting. The mid-point between the vesting date and the maximum contractual expiration date is used as the expected term under this method. For awards with multiple vesting-tranches, the periods from grant until the mid-point for each of the tranches are averaged to provide an overall expected term.

- *Expected Volatility.* Effective 2019, the expected volatility is derived from the average historical volatilities of publicly traded companies within our industry that we consider to be comparable to our business over a period approximately equal to the expected term for the options. In 2018, the expected volatility for non-employee options was derived over a period approximately equal to the remaining contractual life of the option. In evaluating similarity, we considered factors such as stage of development, risk profile, enterprise value and position within the life sciences industry.

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

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

Common Stock Valuation

The estimated fair value of the common stock underlying our stock options and stock awards was determined at each grant date by our board of directors, with input from management. All options to purchase shares of our common stock are intended to be exercisable at a price per share not less than the per-share fair value of our common stock underlying those options on the date of grant.

In the absence of a public trading market for our common stock, on each grant date, we develop an estimate of the fair value of our common stock based on the information known to us on the date of grant, upon a review of any recent events and their potential impact on the estimated fair value per share of the common stock, and in part on contemporaneous input from an independent third-party valuation firm.

Our valuations of our common stock were determined in accordance with the guidelines outlined in the American Institute of Certified Public Accountants Practice Aid, *Valuation of Privately-Held-Company Equity Securities Issued as Compensation* (Practice Aid).

The assumptions used to determine the estimated fair value of our common stock are based on numerous objective and subjective factors, combined with management judgment, including:

- external market conditions affecting the pharmaceutical and medical devices industry and trends within the industry;
- our stage of development and business strategy;
- the rights, preferences and privileges of our preferred stock relative to those of our common stock;
- the prices at which we sold shares of our preferred stock;
- our financial condition and operating results, including our levels of available capital resources;
- the progress of our research and development efforts;
- equity market conditions affecting comparable public companies; and
- general U.S. market conditions and the lack of marketability of our common stock.

For our valuations performed in August 2019, we applied the market approach outlined in the Practice Aid to determine our enterprise value. Specifically, we used the guideline public company analysis, which relies on an analysis of publicly traded companies similar in industry or business model to us and uses these guideline companies to develop relevant market multiples and ratios. These multiples and ratios were then applied to our corresponding financial metrics.

For our valuations performed in November 2019 and April 2020, we applied a weighted combination of the market approach and the income approach outlined in the Practice Aid to determine our enterprise value. Under the market approach, we used the guideline public company analysis, guideline transactions analysis and an analysis based on a recent acquisition offer. For the guideline public company and guideline transactions analysis, we identified a group of comparable public companies and recent transactions within our industry. For the comparable companies, we estimated market multiples and ratios. These multiples and ratios were then applied to our corresponding financial metrics. When selecting comparable companies, consideration was given to industry similarity, their specific products offered, financial data availability and capital structure. The income approach incorporates the use of a discounted cash flow model in which our estimated future cash flows and our residual value beyond the forecast period are discounted using an appropriately risk-adjusted weighted average cost of capital. Our forecasts used in the discounted cash flow model are based in part on strategic plans and represent our estimates based on current and forecasted business and market conditions.

The Practice Aid identifies various available methods for allocating enterprise value across classes and series of capital stock to determine the estimated fair value of common stock at each valuation date. In accordance with the Practice Aid, we considered the following methods:

- *Option Pricing Method.* Under the option pricing method (OPM), shares are valued by creating a series of call options with exercise prices based on the liquidation preferences and conversion terms of each equity class. The estimated fair values of the preferred and common stock are inferred by analyzing these options.

- *Probability-Weighted Expected Return Method.* The probability-weighted expected return method is a scenario-based analysis that estimates value per share based on the probability-weighted present value of expected future investment returns, considering each of the possible outcomes available to us, as well as the economic and control rights of each share class.

We determined that the OPM method was the most appropriate method for allocating our enterprise value to determine the estimated fair value of our common stock. In determining the estimated fair value of our common stock, our board of directors also considered the fact that our stockholders could not freely trade our common stock in the public markets. Accordingly, we applied discounts to reflect the lack of marketability of our common stock based on the weighted-average expected time to liquidity. The estimated fair value of our common stock at each grant date reflected a non-marketability discount partially based on the anticipated likelihood and timing of a future liquidity event.

As of December 31, 2019, there was $1.9 million of unrecognized compensation costs related to non-vested common stock options, expected to be recognized over a weighted-average period of 2.29 years. As of June 30, 2020, there was $1.7 million of unrecognized compensation costs related to non-vested common stock options, expected to be recognized over a weighted-average period of 2.1 years. Subsequent to June 30, 2020, we granted options for 834,871 shares of common stock, subject to service-based vesting conditions, with a weighted-average exercise price of $2.19 per share to employees, for which we expect to record approximately $10.9 million of compensation costs related to non-vested common stock options over a weighted-average period of 3.94 years. The deemed fair value of our common stock underlying these 834,871 shares and the related unrecognized compensation costs were calculated based the midpoint of the price range set forth on the cover of this prospectus.

Following the closing of this offering, our board of directors intends to determine the fair value of our common stock based on the closing sales price of our common stock on the date of grant of equity awards.

The intrinsic value of all outstanding options as of June 30, 2020 was approximately $46.5 million, based on an assumed initial public offering price of $15.00 per share (the midpoint of the price range set forth on the cover of this prospectus), of which approximately $32.8 million is related to vested options and approximately $13.7 million is related to unvested options.

Income Taxes

Our major tax jurisdictions are the United States and California, Switzerland and Neuchâtel, and Grand Cayman.

We provide for income taxes under the asset and liability method. Current income tax expense or benefit represents the amount of income taxes expected to be payable or refundable for the current year. Deferred income tax assets and liabilities arise due to differences between when assets or liabilities are recognized for tax purposes and when they are recognized for financial reporting purposes. Net operating losses and credit carryforwards are also deferred tax assets. Deferred tax assets and liabilities are measured using the enacted tax rates and laws that will be in effect when such items are expected to reverse. Deferred income tax assets are reduced, as necessary, by a valuation allowance when management determines it is more likely than not that some or all of the tax benefits will not be realized.

We assess all material positions taken in any income tax return, including all significant uncertain positions, in all tax years that are still subject to assessment or challenge by relevant taxing authorities. All of our tax years will remain open for examination by the federal and state tax authorities for three and four years, respectively, from the date of utilization of the net operating loss or research and development credits. We do not have any tax audits or other issues pending.

Utilization of the net operating loss carryforwards and research and development tax credit carryforwards may be subject to annual limitations due to the ownership change limitations provided by the Internal Revenue Code of 1986, as amended (Code), as defined in Section 382, and other similar state provisions. The annual limitation may result in the expiration of net operating losses and credits before utilization.

The 2017 Tax Cut and Jobs Act included the implementation of a modified territorial tax system, which has the effect of subjecting earnings of our foreign subsidiaries to U.S. taxation on Global Intangible Low-Taxed Income (GILTI). The FASB allows companies to adopt a policy election to account for the tax on GILTI under one of two methods: (i) account for the tax on GILTI as a component of tax expense in the period in which the tax is incurred (the period cost method) or (ii) account for the tax on GILTI in a company's measurement of deferred taxes (the deferred method). We have elected to account for the tax on GILTI under the period cost method.

The Coronavirus Aid, Relief, and Economic Security ("CARES") Act enacted in March 2020 did not provide an income tax benefit for us given our historical U.S. losses and a full valuation allowance against our net U.S. deferred tax assets.

JOBS Act Accounting Election

The Jumpstart Our Business Startups Act of 2012 (JOBS Act) permits an "emerging growth company" such as us to take advantage of an extended transition period to comply with new or revised accounting standards applicable to public companies. However, we have chosen to irrevocably "opt out" of such extended transition period, and as a result, we will comply with new or revised accounting standards on the relevant dates on which adoption of such standards is required for non-emerging growth companies.

Recent Accounting Pronouncements

See "Recent Accounting Pronouncements" in Note 3 to our consolidated financial statements included elsewhere in this prospectus for additional information.

Quantitative and Qualitative Disclosures about Market Risk

Interest Rate Risk

We are exposed to interest rate risks related to our cash, cash equivalents and borrowings. We had cash and cash equivalents of $43.3 million as of June 30, 2020, which consist of cash and money market funds. We held cash in foreign banks of approximately $4.9 million at June 30, 2020 that was not federally insured. Interest-earning money market funds carry a degree of interest rate risk; however, historical fluctuations in interest income have not been significant.

We had outstanding debt of $16.7 million under the CIBC Agreement and $29.3 million under 2020 Notes Agreement as of June 30, 2020, with interest rate of 4.25% and 5.25%, respectively. In the ordinary course of business, we may enter into contractual arrangements to reduce our exposure to interest rate risks. We believe that a 10% change in interest rates would not have a significant impact on our consolidated financial statements.

Foreign Currency Exchange Risk

We operate in countries other than the United States and are exposed to foreign currency risks. Revenue from sales outside of the United States represented 67.2% and 51.4% of our total revenue for the year ended December 31, 2019 and the six months ended June 30, 2020, respectively. We bill most direct sales outside of the United States in local currencies, which are mostly comprised of the Swiss franc, the Euro, the British pound, and the Australian dollar. Operating expenses related to these sales are largely denominated in the same respective currency, thereby limiting our transaction risk exposure. We therefore believe that the risk of a significant impact on our operating income from foreign currency fluctuations is not significant. The risk of a significant impact on our operating income from foreign currency fluctuations will further diminish as revenue from sales to customers in the United States increases and represents a greater proportion of total revenues. A 10% change in weighted average foreign currency exchange rates would have changed our revenues and operating expenses for the year ended December 31, 2019 by approximately $2.3 million and $1.3 million, respectively, with a net impact of $1.0 million on our net income. A 10% change in weighted average foreign currency exchange rates would have changed our revenues and operating expenses for the six months ended June 30, 2020 by approximately $0.6 million and $0.6 million, respectively, with a net impact of $0.1 million on our net income. We do not currently hedge our exposure to foreign currency exchange rate fluctuations; however, we may choose to hedge our exposure in the future.

BUSINESS

Overview

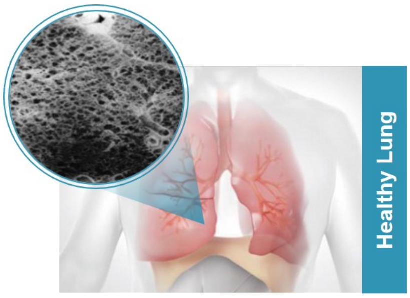
We are a commercial-stage medical technology company that provides a minimally invasive treatment for patients with severe emphysema, a form of chronic obstructive pulmonary disease (COPD). Our solution, which is comprised of the Zephyr Endobronchial Valve (Zephyr Valve), the Chartis Pulmonary Assessment System (Chartis System) and the StratX Lung Analysis Platform (StratX Platform), is designed to treat severe emphysema patients who, despite medical management, are still profoundly symptomatic and either do not want or are ineligible for surgical approaches. We estimate our solution currently addresses approximately 500,000 patients in the United States and 700,000 patients in select international markets, which represents a global market opportunity of approximately $12 billion.

We have a compelling body of clinical evidence with over 100 scientific articles published regarding the clinical benefits of Zephyr Valves, including in *The New England Journal of Medicine*, *The Lancet* and the *American Journal of Respiratory and Critical Care Medicine*. Multiple randomized controlled clinical trials have demonstrated that patients selected with the Chartis System and successfully treated with Zephyr Valves have shown statistically and clinically significant improvements in lung function, exercise capacity and quality of life compared to medical management alone.

In June 2018, we received pre-market approval (PMA) by the U.S. Food and Drug Administration (FDA) as a result of our breakthrough technology designation. The Zephyr Valve is now commercially available in more than 25 countries, with over 80,000 valves used to treat more than 20,000 patients through June 30, 2020. We have established reimbursement in major markets in North America, Europe and Asia Pacific and the Zephyr Valve has been included in treatment guidelines for COPD worldwide.

COPD refers to a group of lung diseases characterized by obstruction of airflow that interferes with normal breathing. In 2015, it affected approximately 175 million patients and was responsible for 3.2 million deaths globally. We estimate that there are approximately 8.5 million severe COPD patients in developed markets globally as of 2019. Of these approximately 8.5 million severe COPD patients, we estimate approximately 3.2 million have severe emphysema and approximately 5 million have severe chronic bronchitis. Of the approximately 3.2 million severe emphysema patients, we estimate that approximately 1.2 million may be eligible for treatment with Zephyr Valves, and an additional number may be able to be treated in the future with other technologies under development by us.

In the United States, COPD is the third leading cause of death and affected approximately 16 million Americans as of 2013. COPD is expected to be associated with approximately $49 billion in direct medical costs in 2020. Emphysema, a form of COPD, which accounts for approximately 25% of all COPD patients, is a debilitating and life-threatening disease that progressively destroys lung tissue, resulting in a diminishing ability to breathe and engage in the most basic daily activities, leading to a high mortality rate. The lung damage caused by emphysema is irreversible. As of 2018, approximately 3.8 million patients in the United States were diagnosed with emphysema, of which roughly 1.5 million have severe emphysema. Of these 1.5 million severe emphysema patients, we estimate that approximately 500,000 patients would qualify for treatment with our Zephyr Valves, and an additional number may be able to be treated in the future with other technologies under development by us if successfully developed and approved.



There are several treatment options for patients with emphysema, depending on the level of severity of the disease, ranging from medical management to more invasive surgical options. However, these treatment options have significant limitations for patients with severe emphysema.

Initial treatment for emphysema is generally limited to medications that primarily target airway obstruction and reduce inflammation, but do not address the underlying lung tissue destruction. As the disease worsens, symptoms increase despite optimized drug therapy, pulmonary rehabilitation exercises and supplemental oxygen.

As patients enter the severe phase, many become increasingly unable to engage in the most basic daily activities as a result of the persistent feeling of breathlessness and this reduces their overall health status each year. At this point, physicians may refer patients to thoracic surgeons for single or double lung transplantation or for lung volume reduction surgery (LVRS), in which hyperinflated tissue is cut away and removed. These invasive surgical procedures involve substantial risk of complications, prolonged hospital stays and high mortality. In addition, many patients do not qualify for these procedures. Patients with severe emphysema generally experience a worse quality of life than patients with lung cancer. We believe there is both an urgent clinical need and a strong market opportunity for a solution that is safe, effective and minimally invasive.

Our solution, which is comprised of the Zephyr Valve, Chartis System and StratX Platform, is designed to address the need for a more effective, minimally invasive treatment option for patients with severe emphysema, offering bronchoscopic lung volume reduction without surgery and its associated risks. Zephyr Valves are indicated for bronchoscopic treatment of adult patients with hyperinflation associated with severe emphysema in regions of the lung that have little to no collateral ventilation. During the one-time bronchoscopic procedure, Zephyr Valves are placed in the airways to occlude the most diseased parts of the lung, allowing trapped air to escape until the lobe is reduced in size. The intended result is a reduction in lung volume and hyperinflation in the targeted lobe, allowing healthier parts of the lung to expand and take in more air. Patients who are successfully treated with the Zephyr Valve report improved breathing and the ability to go back to doing everyday tasks more easily.

We believe our solution provides the following important benefits:

- **Significant, durable improvements in lung function, exercise capacity and quality of life**, demonstrated in a substantial body of clinical data;
- **Well-characterized safety profile**, evidenced by the inclusion in global treatment recommendations and more than 20,000 patients treated globally with the Zephyr Valve;
- **High procedural success** driven by innovative and effective patient assessment tools; and
- **Minimally invasive procedure** typically lasting less than an hour.

Over 100 scientific articles have been published regarding the clinical benefits of Zephyr Valves, including multiple meta-analyses, review articles, cost-effectiveness analyses and risk-benefit analyses. The Zephyr Valve showed statistically significant improvements in lung function, exercise capacity and quality of life when compared to medical management alone in multiple randomized controlled clinical trials. Additionally, independent studies have demonstrated that Zephyr Valves deliver increases in the BODE Index (a multi-dimensional health status scoring system for patients with COPD) that have been associated with survival benefits.

The LIBERATE study, our pivotal study published in 2018, was a multicenter, multinational, randomized controlled clinical trial of Zephyr Valves that included 190 patients with severe emphysema and little to no collateral ventilation. All primary and secondary endpoints were statistically significant, including the proportion of patients achieving a clinically significant improvement in lung function as well as the mean improvements in exercise capacity, hyperinflation and quality of life. These outcomes were the result of a high rate of procedural success, with 84% of patients achieving a clinically meaningful reduction in treated lobe volume.

We market and sell our products in the United States through a direct sales organization consisting of 42 sales territory managers as of June 30, 2020. Our sales territory managers are focused on promoting awareness and increasing adoption of our solution primarily among the approximately 800 pulmonologists performing interventional pulmonary procedures and across approximately 500 high volume hospitals in the United States. As of June 30, 2020, we had 28 sales territory managers outside the United States, with 20 in Europe and eight in Asia Pacific. We are expanding our commercial operations in the United States while continuing to foster our international growth. In international markets, we employ both direct and distributor-based sales models, with over 90% of our revenue generated in markets where we sell directly.

In the United States, our solution is reimbursed based on established Category I CPT and ICD-10 Procedure Coding System (PCS) codes and associated MS-DRG and APC payment groupings. Current reimbursement in the United States is generally sufficient to cover the hospital costs of the procedure and related inpatient care. As of June 30, 2020, commercial payors such as Aetna, Humana, Priority Health and Emblem Health have issued positive coverage policies for endobronchial valve procedures. United Healthcare removed the endobronchial valve codes from their non-covered list, and as such no longer considers the procedure unproven or experimental. Other commercial payors, such as many plans in the Blue Cross Blue Shield family of plans, do not yet consider our solution medically necessary, but these same plans are approving pre-authorization requests on a case-by-case basis. Medicare, currently without a public coverage policy, covers our solution for patients when medically necessary on a case-by-case basis and other commercial insurers not described above are approving pre-authorization requests on a case-by-case basis. Outside the United States, our solution is covered by major health systems across much of Europe, Australia and South Korea.

We generated revenue of $32.6 million, with a gross margin of 68.8% and a net loss of $20.7 million, for the year ended December 31, 2019 compared to revenue of $20.0 million, with a gross margin of 61.4% and a net loss of $18.5 million, for the year ended December 31, 2018. We generated revenue of $12.3 million, with a gross margin of 54.2% and a net loss of $19.1 million, for the six months ended June 30, 2020 compared to revenue of $13.1 million, with a gross margin of 66.0% and a net loss of $11.7 million, for the six months ended June 30, 2019. As of June 30, 2020, we had an accumulated deficit of $229.6 million. We currently generate most of our revenue from the sales of Zephyr Valves and delivery catheters. We also generate a smaller amount of our revenue from our Chartis System, which is comprised of sales of the balloon catheters, usage fees and sales of the Chartis console. The StratX Platform, while used to identify patients eligible for treatment with Zephyr Valves, does not independently generate any revenue for us.

Our Success Factors

We believe the continued growth of our company will be driven by the following success factors:

- ***Innovative, minimally invasive treatment paired with proprietary patient selection technology.*** We have developed the first FDA-approved implant, the Zephyr Valve, to reduce hyperinflation associated with severe emphysema, which received a breakthrough technology designation and pre-market approval. To enhance optimal outcomes with the Zephyr Valve, the Chartis System and the StratX Platform are designed to help physicians identify and treat those patients most likely to benefit from treatment with Zephyr Valves. We believe the combination of our innovative valve treatment and patient assessment tools represents a significant competitive advantage and our goal is to establish our solution as a standard of care for severe emphysema.

- ***Addressing a large underserved market.*** We are addressing a large underserved market for patients with severe emphysema whose treatment options are limited. We believe our solution currently addresses approximately 500,000 patients in the United States and 700,000 patients in select international markets who have severe emphysema with hyperinflation and limited to no collateral ventilation, representing an approximately $12 billion global market opportunity. We have established significant momentum with our broad global commercial footprint across more than 25 countries and with a track record of more than 20,000 patients treated. Additionally, we have ongoing research and development efforts to further expand the addressable market of our products.

- ***Compelling body of clinical evidence and inclusion in COPD guidance documents.*** The safety, effectiveness and clinical advantages of Zephyr Valves have been demonstrated in multiple randomized controlled clinical trials. The quality of evidence for treatment with endobronchial valves has been graded "A" by the Global Initiative for Chronic Obstructive Lung Disease (GOLD), and the United Kingdom's National Institute for Health and Care Excellence (NICE) has included this treatment as part of standard measures for COPD and recommended all qualifying patients be evaluated for eligibility. Treatment with endobronchial valves has been included in other national and international COPD guidance documents and evidence reviews, including organizations such as the German Respiratory Society (DGP), the Dutch National Health Care Institute (Zorginstituut Nederland), the Cochrane Library and the COPD Pocket Consultant Guide.

- ***Favorable coverage and established reimbursement.*** In the United States, our solution is reimbursed based on established Category I Current Procedural Terminology (CPT) and ICD-10 PCS codes and associated MS-DRG and APC payment groupings. Current reimbursement in the United States is generally sufficient to cover the hospital costs of the procedure and related inpatient care. As of June 30, 2020, commercial payors such as Aetna, Humana, Priority Health and Emblem Health have issued positive coverage policies for endobronchial valve procedures. United Healthcare removed the endobronchial valve codes from their non-covered list, and, as such, no longer considers the procedure unproven or experimental. Other commercial payors, such as many plans in the Blue Cross Blue Shield family of plans, do not yet consider our solution medically necessary, but these same plans are approving pre-authorization requests on a case-by-case basis. Medicare, currently without a public coverage policy, covers our solution for patients when medically necessary on a case-by-case basis. We estimate that roughly 75% of the potential Zephyr Valve patient population are Medicare/Medicaid beneficiaries, of which approximately 25% have managed Medicare/Medicaid and the remaining 50% have traditional Medicare/Medicaid. Approximately 25% of the potential Zephyr Valve patient population is under third-party commercial payor policies. We have a dedicated patient reimbursement support team designed to assist patients as they navigate the reimbursement process that works collaboratively with patients and providers to help secure the appropriate prior authorization approvals in advance of treatment. We continue to educate private insurers on our clinical data and patient selection tools to continue to expand the number of positive coverage policies. Outside the United States, our solution is covered by major health systems across much of Europe, Australia and South Korea.

- ***Comprehensive approach to market development and patient engagement.*** We have established a stepwise approach to market development across three key stakeholders in severe emphysema treatment: hospitals, physicians and patients. Our commercial organization is focused on working with pulmonary physicians and their hospitals to build emphysema centers of excellence where physicians are instructed in the workup of advanced COPD and perform bronchoscopic lung volume reduction using our solution. Our team works closely with all members of the hospital care team to help these centers efficiently incorporate our solution as a new service line. In addition, we are partnering with these centers to build awareness and referrals from primary care and other physicians who may be managing severe emphysema patients in the community. We build upon this approach with direct-to-patient marketing initiatives that help educate patients on the Zephyr Valve procedure and where it is available. We believe that this comprehensive approach to engagement across multiple constituents will help to increase awareness of and demand for our solution.

- ***Robust intellectual property portfolio.*** We own intellectual property that covers the Zephyr Valve and Chartis System. As of June 30, 2020, we held 33 U.S. patents and 82 international patents that include device, apparatus and method claims. In addition, we believe that our trade secrets, including manufacturing know-how, provide additional barriers to entry.

Our Growth Strategy

Our vision is to be a global leader in treating advanced lung disease and to have a transformational impact on the lives of patients. Our goal is to establish our solutions as the standard of care for the assessment and treatment of patients with severe COPD.

Key elements of our strategy to achieve this vision include:

- ***Expanding our commercial organization in the United States to drive adoption of Zephyr Valves.*** As of June 30, 2020, we sold Zephyr Valves to more than 100 hospitals and had 42 sales territory managers in the United States. We plan to expand our commercial organization by recruiting and training talented sales territory managers in existing and new markets in the United States to help facilitate further adoption and broaden awareness of Zephyr Valves primarily among the approximately 800 pulmonologists performing interventional pulmonary procedures across approximately 500 high volume hospitals. We believe investing in a scalable, efficient direct sales force and continuing the development of our marketing efforts will help us broaden adoption of our solution and increase revenue growth.

- ***Collaborating with hospitals to address unmet patient needs.*** Our strategy is to identify regions with high unmet need, identify leading hospitals and work with champions of our solution to build emphysema centers of excellence. We believe there is a significant growth opportunity for hospitals to provide high quality comprehensive diagnosis and treatment for severe emphysema patients. We believe we can efficiently serve the United States market, focusing on approximately 500 high volume hospitals, of which we currently cover a small percentage.

- ***Promoting awareness among patients, physicians and other healthcare providers.*** We intend to continue to promote awareness of our solution through training and educating patients, physicians, pulmonary rehabilitation centers, key opinion leaders and various medical societies on the proven clinical benefits of Zephyr Valves. We also intend to continue helping physicians in their outreach to patients and other healthcare providers. In addition, we intend to continue to publish additional clinical data in various industry and scientific journals and online and to present at various industry conferences. We believe that many patients who suffer from severe emphysema are eager for a minimally invasive treatment option such as the Zephyr Valve. In a 2019 published study, we conducted a survey of 294 severe emphysema patients, of which 76.4% said they would choose a minimally invasive treatment option such as the Zephyr Valve over their existing treatment options. We also plan to continue building patient awareness through our direct-to-patient marketing initiatives, which include advertising, social media and online education. We also intend to continue helping physicians in their outreach to patients and other healthcare providers.

- ***Continuing to invest in research and development to foster innovation and expand our addressable market.*** Our commitment to improving patient lives fuels our desire to foster innovation through continuous research and product development. We intend to continue investing in existing and next generation technologies to further improve our products and clinical outcomes, enhance patient selection and broaden the patient population that can be treated with our products. We are in discussions with the FDA regarding the potential use of Zephyr Valves for the management of persistent air leaks (air leaks lasting five days or longer despite use of a chest tube). In addition, we are continuing to invest in the accuracy and features of our patient assessment tools. In the future, we also plan to conduct clinical research of AeriSeal, a potential product in development for the treatment of severe emphysema patients who are not qualified for Zephyr Valve treatment due to collateral ventilation.

- ***Expanding in existing and new international markets.*** We have established a leading international sales force in interventional pulmonology. We intend to continue expanding our team and seeking additional international regulatory clearances in order to more fully penetrate this global opportunity. As of June 30, 2020, we had 28 sales territory managers outside the United States, with 20 in Europe and eight in Asia Pacific. Our goal is to further increase sales of the Zephyr Valves in existing international markets in Europe—including Austria, Belgium, France, Germany, Italy, the Netherlands, Spain, Switzerland and the United Kingdom, deepen penetration in Australia, China and South Korea, and expand our reach to new markets, such as Japan. We plan to strategically invest in new markets based on our assessment of market size and opportunity and prospects for compelling reimbursement coding and coverage.

- ***Driving profitability by scaling our business operations to achieve cost and production efficiencies.*** We plan to drive profitability and gross margin expansion by leveraging our manufacturing capacity to scale production volume, improve efficiencies and lower costs as we increase supply to meet the anticipated growing demands for our products. In the future, our goal is to lower the cost of goods sold through productivity improvements, implementation of lean manufacturing and spreading the fixed costs over increased number of units as we grow the volume of products sold.

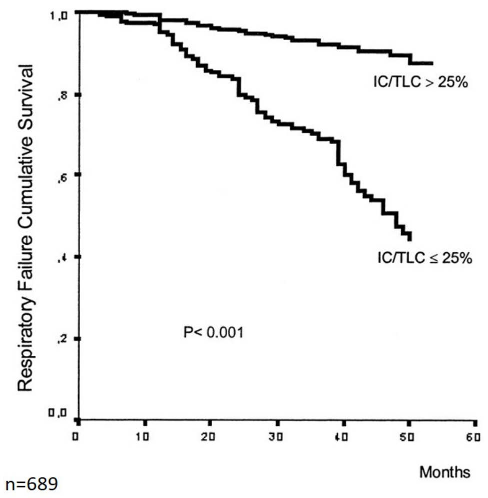
Our Market Opportunity

Overview of COPD and Emphysema

COPD refers to a group of lung diseases characterized by obstruction of airflow that interferes with normal breathing. Risk factors for COPD include smoking, environmental hazards, air pollution and genetics. In 2010, COPD accounted for approximately $30 billion in direct medical expense in the United States alone, and COPD is expected to be associated with approximately $49 billion in direct medical costs in 2020. COPD is the third leading cause of death in the United States, and one of the only major causes of death that continues to grow in developed countries. In 2015, 3.2 million people died from COPD worldwide, up almost 12% from 1990. In developed countries from 1990 to 2015, COPD-related deaths increased at a rate of almost 32%. The number of COPD patients continues to grow as Medicare estimates its number of COPD patients grew from 4.8 million in 2007 to 6.4 million in 2017.

Emphysema, a form of COPD, which accounts for approximately 25% of all COPD patients, is a debilitating and life-threatening disease that progressively destroys lung tissue, resulting in a diminishing ability to breathe and engage in the most basic daily activities, leading to a high mortality rate. The lung damage caused by emphysema is irreversible. In patients with emphysema, diseased portions of the lung lose their ability to exchange oxygen and carbon dioxide due to damage to the air sacs, or alveoli. The diseased portions of the lung also lose elasticity, become over-inflated, and crowd out the healthier lung tissue. As a result, patients with emphysema experience shortness of breath, gradually losing their ability to engage in the most basic daily activities such as climbing a flight of stairs, walking or showering. Based on published literature, the five-year mortality rate for patients with severe emphysema is approximately 50%.

The following graph shows an increased mortality rate for patients with more hyperinflation relative to patients with less hyperinflation.



The inspiratory capacity-to-total-lung capacity (IC/TLC) ratio is an indirect measurement of lung hyperinflation. The graph above depicts two Kaplan-Meier survival analyses of (1) patients with an IC/TLC ratio greater than 25% and (2) patients with an IC/TLC less than or equal to 25%.

Emphysema is diagnosed through a combination of breathing tests and computed tomography (CT) imaging of the lungs. The diagnosis is typically done by a radiologist or a pulmonologist. Emphysema severity is evaluated using a standardized test called spirometry as well as the degree of patient symptoms.

Current Treatments for Emphysema and Their Limitations

There are several treatment options for patients with emphysema, depending on the level of severity of the disease, ranging from medical management to surgery. However, these treatment alternatives have significant limitations and in some cases are highly invasive.

Initial treatment for emphysema is generally limited to prescribing inhaled medications such as drugs that open the airways and reduce inflammation, which primarily target airway obstruction. However, as the disease becomes more severe, the effectiveness of drug therapy is diminished, and patients feel increasingly breathless. As the disease progresses, physicians may prescribe pulmonary rehabilitation exercises and supplemental oxygen, but these can be poorly tolerated by patients and often lose effectiveness with time. As patients enter the severe phase, many become increasingly unable to engage in the most basic daily activities as a result of the persistent feeling of breathlessness and this reduces their overall health status each year. At this point, physicians may refer patients to thoracic surgeons for LVRS, in which hyperinflated tissue is cut away and removed, or for single or double lung transplantation.

LVRS is an invasive surgery that involves cutting away diseased tissue to create space for the remaining lung to more fully inflate. LVRS was studied extensively in the National Emphysema Treatment Trial (NETT), which showed that while a broad group of patients gained quality of life and exercise capacity from the surgery, it also involved substantial risks of complications, prolonged hospital stays and even death. As a result of the NETT study, use of LVRS was restricted by the Centers for Medicare & Medicaid Services (CMS) to a subgroup of patients and can only be offered at a limited number of highly specialized medical centers.

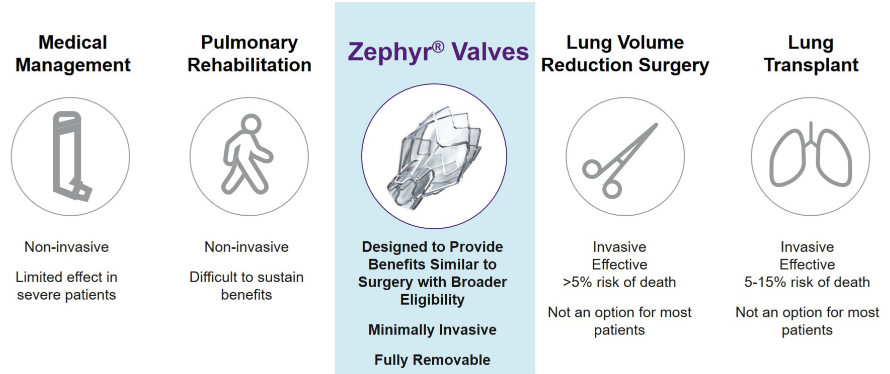
Lung transplantation involves surgically removing one or both lungs and replacing them with donor lungs. This procedure is highly time and resource intensive due to the complexity of the surgery. Even with a successful procedure and consistent use of anti-rejection medications, lung transplantation patients have a five-year survival rate on average. Due to these limitations, and constraints from limited donor supply, LVRS and lung transplantation combined have fewer than 2,000 procedures performed for COPD each year in the United States.

In addition to recently approved endobronchial valves, there are other approaches to a minimally invasive alternatives to LVRS, including the use of airway bypass, coils and vapor. However, to date, only endobronchial valves have demonstrated safety and effectiveness in FDA-approved investigational device exemption (IDE) studies in the United States.

Our Solution

Our solution, which is comprised of the Zephyr Valve, Chartis System and StratX Platform, is designed to treat severe emphysema patients who, despite medical management, are still profoundly symptomatic and either do not want or are ineligible for surgical approaches. Our solution is designed to address the need for a more effective, minimally invasive treatment option for patients with severe emphysema, offering bronchoscopic lung volume reduction without surgery and its associated risks.

Zephyr Valves are indicated for bronchoscopic treatment of adult patients with hyperinflation associated with severe emphysema in regions of the lung that have little to no collateral ventilation. During the one-time bronchoscopic procedure, Zephyr Valves are placed in the airways to occlude the most diseased parts of the lung, allowing trapped air to escape until the lobe is reduced in size. The intended result is a reduction in lung volume and hyperinflation in the targeted area, allowing healthier parts of the lung to expand and take in more air. Patients who are successfully treated with the Zephyr Valve report improved breathing and the ability to go back to doing everyday tasks more easily. When combined with the Chartis System for informed patient selection and treatment planning, Zephyr Valves have been shown to have successful procedure rates of 84-90% in clinical trials.



We believe our solution provides the following important benefits:

- **Significant, durable improvements in lung function, exercise capacity and quality of life**, demonstrated in a substantial body of clinical data;
- **Well-characterized safety profile**, evidenced by the inclusion in global treatment recommendations and more than 20,000 patients treated globally with Zephyr Valve;
- **High procedural success** driven by innovative and effective patient assessment tools; and

• **Minimally invasive procedure** typically lasting less than an hour.

In addition, we believe our solution provides several benefits to other key stakeholders:

• For hospitals, the Zephyr Valve represents a new service line with potential economic benefits, driving additional patients to their facilities. Patients who are evaluated require a comprehensive workup that may unveil other health conditions such as heart disease or cancer, which also may require treatment.

• For physicians, the Zephyr Valve enables treatment for a patient population with few alternatives, and the combination of using the StratX Platform and Chartis System are designed to enable a simple, predictable and efficient patient selection process.

• For payors, treatment with the Zephyr Valve has been demonstrated to result in fewer complications and quicker recovery than invasive surgical alternatives and may reduce hospital stays for COPD and incidence of respiratory failure. We believe the combination of using the StratX Platform and Chartis System enables selection and treatment of patients most likely to benefit from our solution.

Treatment with Zephyr Valves

Patient Selection and Treatment Planning

Patients with advanced COPD routinely undergo a thorough diagnostic workup, which typically includes a high-resolution CT scan of their lungs to determine if they have severe emphysema and hyperinflation. If the patient meets medical eligibility criteria for Zephyr Valves, their CT scan data will be uploaded to our secure cloud-based CT analysis service, the StratX Platform. The treating physician receives an easy-to-read report that we designed for our solution (StratX Lung Report) and based on the report, CT scan and other clinical data, decides if the patient is a good candidate for treatment with Zephyr Valves and which lobes may be the best target for treatment. On the day of the procedure, a flexible camera called a bronchoscope is inserted into the lungs, and using the balloon catheter and console comprising the Chartis System, the physician can determine the presence or absence of collateral ventilation and confirm if the target lobe is likely to respond to treatment. If the assessment shows that there is little to no collateral ventilation to the target lobe (which would refill the lobe with air and limit benefit from the valves), the physician then proceeds to place Zephyr Valves in all airways leading to the target lobe. If there is collateral ventilation in the lobe, the physician may measure another lobe for possible treatment, or decide not to treat the patient with valves.

Placement of the Zephyr Valves

The Zephyr Valve is typically implanted under general anesthesia or conscious sedation. Using our Endobronchial Delivery Catheter (EDC) in a simple, one-step process, physicians select the optimal valve size for each airway. The valves are loaded into the delivery catheter and deployed through the bronchoscope using a controlled release mechanism to enable optimal placement. We offer four valve sizes to accommodate a broad range of airway anatomy that physicians may encounter. Following placement of valves, the patient is kept in the hospital, typically for three nights, to monitor for any side effects including pneumothorax. If a patient develops a pneumothorax, their hospital stay is typically extended by a week.

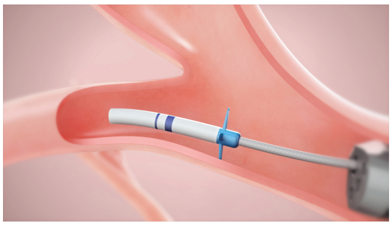
Zephyr Valves

Each of the Zephyr Valves consists of a one-way silicone duckbill valve suspended inside a self-expanding frame made of shape-memory metal, called Nitinol. The Zephyr Valve is designed to be easily and accurately sized and offers controlled and accurate deployment at the target location. The Zephyr Valve is also designed to resist fractures or breakage, adapt to changes in airway size and stay in place following deployment.

The following diagram depicts the four sizes of Zephyr Valves (two different diameters and four lengths).

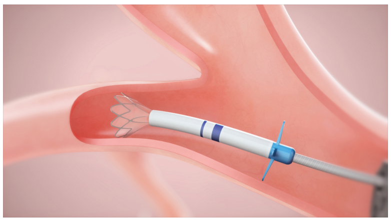
4.0-LP EBV **4.0 EBV** **5.5-LP EBV** **5.5 EBV**

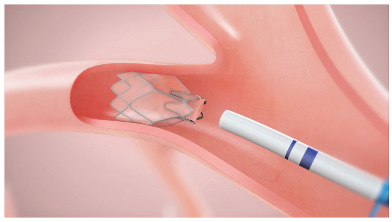
Physicians select the optimal valve size for each airway to be treated using an EDC that includes sizing wings and depth markers, which allows the physician to perform quick and accurate sizing.

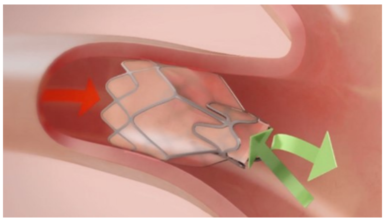


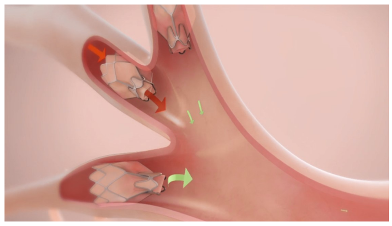
The Zephyr Valve is then loaded into the EDC.

Zephyr Valves offer a controlled, stepwise deployment for easy and accurate placement in the target airway. Once deployed, the valve is held in place by the radial expansion force of the housing. Typically, multiple valves are used to obstruct all airways leading to the target lobe; in clinical studies, an average of four valves per patient were used.









Once the lobe is fully obstructed, air vents out of the treated lobe and is unable to re-enter, causing a reduction in hyperinflation. The treated lobe shrinks in volume over time, allowing the remaining portions of the lung to expand and to restore diaphragm position, making breathing easier.

The Zephyr Valve is designed to be a permanent implant, but unlike surgery, the procedure can be reversed if necessary.

The most common serious complications of treatment with Zephyr Valves can include pneumothorax, worsening of COPD symptoms, hemoptysis, pneumonia, dyspnea, respiratory failure and, in rare cases, death. See “Clinical Trials and Results” for a discussion of complications related to Zephyr Valve, including pneumothoraces and death.

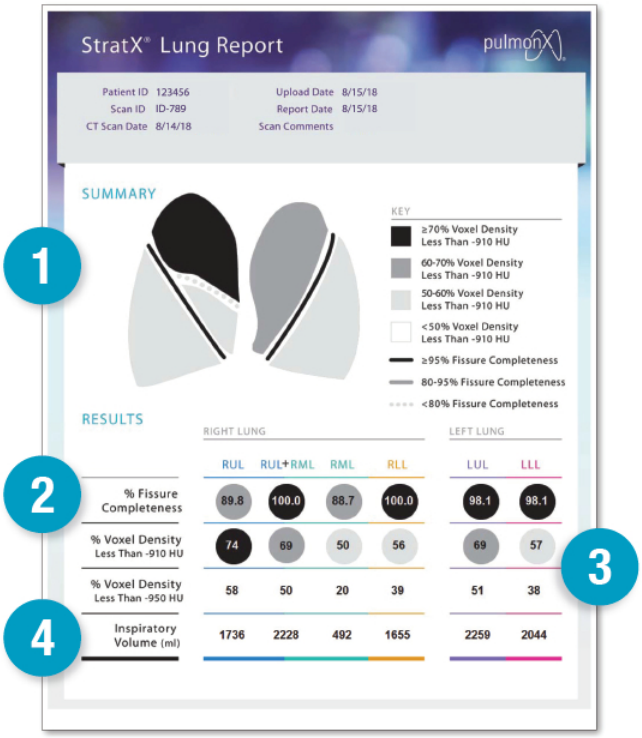
StratX Platform

The StratX Platform is a cloud-based quantitative CT analysis service that provides physicians with an easy-to-read report that we designed for our solution (StratX Lung Report) that includes information on emphysema destruction, fissure completeness and lobar volume to help identify target lobes for treatment with Zephyr Valves. The StratX Platform is designed to enable physicians to:

- Screen treatment candidates non-invasively;
- Prioritize between multiple potential treatment targets, if applicable;
- Enhance case planning and optimize procedure time; and
- Educate themselves and their patients using the simple to read StratX Lung Report.

In order to make the StratX Platform available to physicians, we contract with a third-party cloud service provider. This third-party cloud service enables physicians to upload CT scan data while removing protected health information (PHI) of patients from that data, in case the physicians have, inadvertently, not removed the PHI themselves. We also contract with additional third-party service providers to analyze the CT scan data using their proprietary software, and provide quantitative results via the StratX Lung Report. The StratX Lung Report is then made available to physicians in the third-party cloud service. The software of each of these third-party service providers has received either 510(k) approval or a CE mark. We provide exclusive access to physicians to their StratX accounts and cases and monitor this CT scan upload and analysis process to ensure quality control.

A sample StratX Lung Report is below, with each section briefly described afterwards.



1. **Summary Graphic**: The goal of the Zephyr Valve treatment is to completely obstruct and reduce the volume of a target lobe, thereby reducing hyperinflation and improving breathing. In selecting a target lobe, physicians are instructed to look for higher levels of emphysema destruction and presence of complete or nearly complete fissures with neighboring lobes (which has been associated with absence of collateral ventilation and likely response to therapy). The StratX Lung Report contains tabulated data on fissure completeness by lobe, destruction score by lobe and lobar volume. An infographic "key" for easy interpretation of the data is also included. This infographic includes color coding representing the level of emphysema destruction (with darker colors representing lobes with more destruction) and different levels of fissure completeness relative to a target lobe (with darker and more complete lines having greater completeness).

2. **Fissure Completeness**: Fissure completeness has been shown to be a predictor of success and a surrogate for collateral ventilation between the target and the neighboring lobes. The StratX Lung Report displays fissure completeness values "by lobe," meaning the values are computed as a percentage of the total area of the fissure across the lobar boundary. The value of fissure completeness between each lobar region is represented with a dark solid, light solid or dotted line. The dark solid line represents fissures that are ≥95% intact. The light solid line represents fissures that are 80-95% intact. The dotted line represents fissures that are <80% intact. A fissure completeness score of <80% indicates the likely presence of collateral ventilation in that lobe, indicating that the lobe should not be considered for treatment with Zephyr Valves.

For fissure completeness values of >80%, fissure completeness should be confirmed using the Chartis System to confirm lobe eligibility.

3. **Emphysema Destruction Scoring**: Lobar destruction values of greater than 50% at -910 Hounsfield Units (a measure of tissue density) have been commonly used as an inclusion criterion for various clinical trials of Zephyr Valve treatment. The StratX Lung Report also includes lobar destruction values using -950 Hounsfield Units. In the report and summary view, the degree of shading of a lobe and the numbers within the lobe represent the level of destruction. Lobes with less than 50% destruction are colored white and are usually not considered as potential targets for Zephyr Valve treatment.

4. **Inspiratory Volume**: The inspiratory volume represents the volume of each lobe in mL. The inspiratory volume can help to identify the lobes with the largest volume representing hyperinflation and ones that may be a good target for Zephyr Valve treatment.

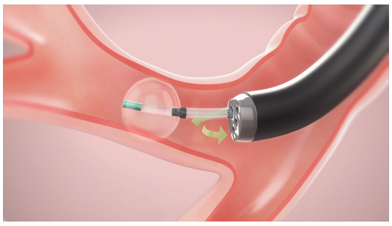
To use the StratX Platform, users must have an account set up with us. After the physician captures a CT scan of the patient's chest according to the StratX parameters, the CT scan is de-identified of patient information and the hospital staff uploads the CT scan to our secure encrypted server where it is analyzed using validated algorithms within the StratX Platform. The StratX Platform generates a report that is checked by a trained technician for accuracy and completeness and uploaded to the hospital's account within two to three working days, where it can be downloaded and reviewed by the treating physician.

We continue to gather scan data and refine our algorithms in the StratX Platform. We believe that our high volume of reports and data are a source of durable competitive advantage.

Chartis Pulmonary Assessment System

The Chartis System is a proprietary balloon catheter and console system with flow and pressure sensors designed to assess the presence of collateral ventilation and to accurately predict responders to Zephyr Valve treatment. The Chartis System consists of a single-patient-use catheter with a central lumen and a balloon at its tip and a console to allow for the assessment of airflow in the targeted lobe.

When the balloon is inflated, the target lobe is blocked, and air can only escape through the catheter’s central lumen.



Airflow and pressure are displayed on the console of the Chartis System allowing for a measurement of collateral ventilation in the targeted lobe. The system works with spontaneous breathing or mechanical ventilation. If the flow of air leaving the occluded lobe is trending towards zero, there is likely no collateral ventilation in the target lobe and it can be successfully treated with Zephyr Valves. By contrast, if the measurement shows continuous airflow from the lobe, the lobe is being refilled through collateral air channels and will likely not respond to Zephyr Valve treatment.

CV-

CV+

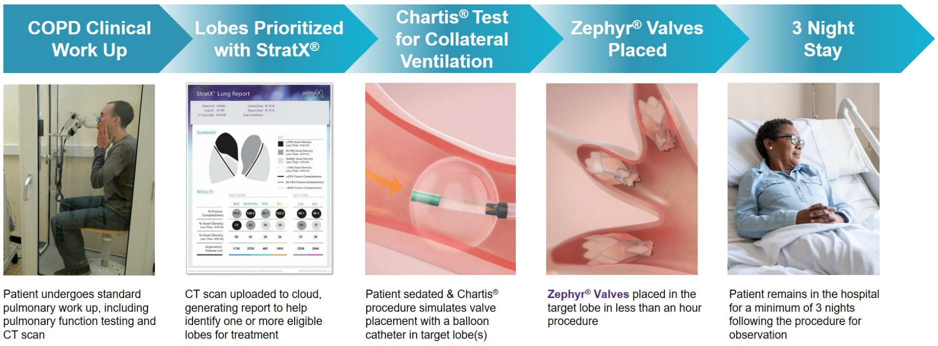
The Chartis System has been validated in multiple randomized controlled clinical trials to predict likely responders to the Zephyr Valve treatment.

The Chartis System offers a physiologic technique for measuring collateral ventilation and complements non-invasive estimates of fissure completeness. Other methods, such as using fissure analysis as a proxy measurement of collateral ventilation allows detection of an incomplete boundary between the lobes but does not measure how much air is flowing across this gap. Without assessment by the Chartis System, physicians may treat a lobe that has collateral ventilation, which will likely not respond to valve treatment, or unnecessarily rule out a patient who could have potentially benefitted from valve treatment.

For example, in one early study not sponsored by us that treated patients with a broad range of fissure completeness, approximately 60% of patients who had fissure completeness of 80-90% in the treated lobe had a successful procedure. If a physician was using only quantitative computed tomography (QCT) and a 90% fissure completeness cutoff to select patients, the physician would inappropriately screen out patients in the 80-90% completeness range that could benefit from valve treatment. In that same study, only 72% of patients with a fissure completeness of 90-100% had successful volume reduction in the target lobe. By comparison, patients selected using the Chartis System in four randomized controlled clinical trials had a success rate of 84%, 88%, 89% and 90%. Thus, while quantitative fissure analysis is an important tool for non-invasively screening out ineligible lobes, we believe it is insufficient for identifying responders to treatment with high accuracy.

Treatment Steps

The following graphic illustrates the typical treatment steps associated with our solution.



Pulmonx Market Opportunity

According to the National Center for Health Statistics, as of 2018, 3.8 million people in the United States have been diagnosed with emphysema and we estimate a 10% incidence rate per year; of these, 1.5 million suffer from severe emphysema and 1.2 million also have associated hyperinflation. An estimated 20% of these patients are too sick to undergo a procedure and approximately 50% have collateral ventilation in the lobe targeted for treatment and therefore are not eligible. Of these 1.5 million severe emphysema patients, we estimate that approximately 500,000 patients would qualify for treatment with our Zephyr Valves in the United States, and an additional number may be able to be treated in the future with other technologies under development by us if successfully developed and approved. We also estimate there are approximately 700,000 Zephyr Valve-eligible patients in select international markets. We estimate this represents a global market opportunity of approximately $12 billion.

Clinical Trials and Results

The safety, effectiveness and clinical benefits of the Zephyr Valve in patients selected using the Chartis System have been evaluated in multiple randomized controlled clinical trials that have collectively evaluated approximately 450 patients in Austria, Belgium, Brazil, France, Germany, the Netherlands, Sweden, the United Kingdom and the United States. The results of our LIBERATE study, which served as the basis for the FDA approval of our PMA application, were published in the *American Journal of Respiratory and Critical Care Medicine* in 2018 and met all its primary and secondary effectiveness endpoints. In addition, over 100 scientific articles have been published on the clinical benefits of Zephyr Valves, including multiple meta-analyses, review articles, cost-effectiveness analyses and risk-benefit analyses.

Four randomized controlled clinical trials using the Chartis System to select eligible patients (with little to no collateral ventilation) have been completed comparing the treatment of severe emphysema patients with Zephyr Valves with medical management versus medical management alone (which may include drug therapy, pulmonary rehabilitation and supplemental oxygen). All four studies demonstrated statistically and clinically significant benefits across a broad range of endpoints, including measures of lung function, exercise capacity, and quality of life. Patients who received the Zephyr Valve treatment together with medical management experienced increased lung function, a better quality of life and increased exercise capacity—they could walk farther, could do more daily life activities, such as walking, gardening, and getting ready in the morning, with less shortness of breath. This was due in part to the high rate of procedural success in deflating the target lobe of the lung, ranging from 84-90% in the studies. When the target lobe was properly occluded and isolated from airflow, trapped air in that lobe escaped only through the Zephyr Valves until the lobe volume was reduced. The remaining lobes were then able to expand more fully and work more efficiently, improving overall lung function. Additionally, studies have evaluated the impact of Zephyr Valves on the BODE Index, showing magnitudes of improvement that have been associated with survival benefits.

We are following patients enrolled in the LIBERATE study for up to five years for safety and effectiveness (FEV_1) assessments. We have also established a patient registry to collect additional data on the safety and effectiveness of the Zephyr Valve (FEV_1) in the United States. We plan to establish similar registries in France and Belgium in the near future.

Summary of Key Clinical Results

As seen in the table below, the results from multiple randomized clinical trials have consistently shown statistically significant and clinically meaningful benefits of Zephyr Valves across multiple measures of effectiveness.

			Improvement in:		
Randomized Controlled Clinical Trials	**Size and Follow-up Period**	**Procedural Success** (TLVR %)	**Lung Function** (FEV_1%) ┬ MCID = 10%-15%	**Exercise Capacity** (6MWD) ┬ MCID = 26 m	**Quality of Life** (SGRQ) ┬ MCID = -4 pts
LIBERATE	n = 190 12 Mo	84%	18.0% p<0.001	39 m p=0.002	-7.1 pts p=0.004
TRANSFORM	n = 97 6 Mo	90%	29.3 % p<0.001	79 m p<0.001	-6.5 pts p=0.031
IMPACT	n = 93 6 Mo	89%	16.3 % p<0.001**	28 m p=0.016**	-7.5 pts p<0.001**
STELVIO	n = 68 6 Mo	88%	17.8 % P=0.001	74 m p<0.001	-14.7 pts* P<0.001

┬ Difference between Zephyr Valve and control groups
* Per protocol, all other values listed are intention to treat (ITT)
** Data included in FDA-approved instructions for use (IFU)

The complications of treatment with Zephyr Valves can include but are not limited to pneumothorax, worsening of COPD symptoms, hemoptysis, pneumonia, dyspnea and, in rare cases, death. The most common side effect of Zephyr Valve placement is a pneumothorax, which is the collapse of a lung due to an air leak inside the lung. Pneumothoraces are believed to be a direct result of rapid shifts in air volume in the chest as the target lobe deflates and the neighboring lobe expands. A pneumothorax typically requires placement of a chest tube to manage the air leak. While most pneumothoraces can be readily managed with standard medical care, in rare cases they can be life-threatening, particularly if left untreated. In the event the pneumothorax does not resolve with standard management, one or more valves can be removed to re-inflate the lung; these are typically replaced later when the pneumothorax has resolved. In clinical trials, pneumothoraces occurred in 18-34% of patients treated with the Zephyr Valve, and in the LIBERATE Study, 17% of the pneumothorax events required no intervention and resolved on their own. Patients who have had their pneumothoraces successfully treated had comparable outcomes to those who did not experience a pneumothorax, other than that their hospital stays were extended by approximately a week compared to the three nights for patients without pneumothoraces.

Further, our current products are contraindicated, and therefore should not be used, in certain patients, including patients (i) for whom bronchoscopic procedures are contraindicated, (ii) with evidence of active pulmonary infection, (iii) with known allergies to Nitinol (nickel-titanium) or its constituent metals (nickel or titanium) or silicone, (iv) who have not quit smoking or (v) with large bullae encompassing greater than 30% of either lung.

Summary of the LIBERATE Study (Pivotal IDE Study)

LIBERATE, our pivotal study, was a multicenter, multinational, randomized controlled trial of Zephyr Valves in patients with heterogeneous emphysema and little to no collateral ventilation. The study was conducted between October 2013 and September 2017, and the results were published in May 2018 in the *American Journal of Respiratory and Critical Care Medicine*.

Key inclusion criteria were emphysema patients with heterogeneous disease (≥15 difference in destruction scores between the target and adjacent lobes), ex-smokers between 40 and 75 years of age, with post-bronchodilator (BD) forced expiratory volume in one second (FEV_1) between 15% and 45% predicted, Total Lung Capacity (TLC) greater than 100% predicted, residual volume (RV) equal to or greater than 175% predicted, diffuse capacity of the lung for carbon monoxide equal to or greater than 20% predicted, a Six-Minute Walk Distance (6MWD) between 100 and 500 meters after a supervised pulmonary rehabilitation program and little to no collateral ventilation. Patients with two or more COPD exacerbations requiring hospitalization in the last year, two or more instances of pneumonia in the last year, uncontrolled pulmonary hypertension, myocardial infarction or congestive heart failure in prior six months, and prior lung transplantation, LVRS, bullectomy or lobectomy were excluded from the study.

The Chartis System was used to confirm that all 190 patients had little to no collateral ventilation and would be likely responders to the Zephyr Valve treatment, and were evaluated initially at six months with follow-up for an additional six months.

One hundred ninety patients with hyperinflation were randomized two-to-one for Zephyr Valves plus medical management (Zephyr Valve Group) or medical management alone (which may include drug therapy, pulmonary rehabilitation and supplemental oxygen) (Control Group) (128 Zephyr Valves patients: 62 Control Group patients) and followed for 12 months. Patients in the Zephyr Valve Group had Zephyr Valves placed in the target lobe to achieve lobar occlusion. Both the Zephyr Valve Group and Control Group patients continued to receive optimal medical management according to current clinical practice. Following their 12-month evaluation, the Control Group patients had an option to receive Zephyr Valve treatment, of which 47 out of 59 (80%) elected to do so. The LIBERATE study had high patient retention with 94% of patients completing follow-up for evaluation for 12 months.

The primary effectiveness endpoint was the percentage of patients enrolled in the Zephyr Valve Group who met the threshold of ≥15% improved FEV_1 as compared to the Control Group at 12 months.

The secondary effectiveness endpoints included standard validated assessments commonly used in COPD studies:

1) FEV_1, a measure of lung function: Difference between the Zephyr Valve Group and the Control Group in absolute change from baseline for FEV_1 at 12 months;

2) 6MWD, a measure of exercise capacity: Difference between the Zephyr Valve Group and Control Group in absolute change from baseline for 6MWD at 12 months; and

3) St. George's Respiratory Questionnaire (SGRQ), a measure of quality of life: Difference between the Zephyr Valve Group and Control Group in absolute change from baseline for SGRQ score at 12 months.

Other endpoints included additional measures of lung function, exercise capacity, breathlessness and quality of life. Adverse events and serious adverse events were evaluated for the Treatment Period (day of procedure to 45 days), and Long-Term Period (46 days after procedure to 12 months) to assess safety.

Results

Effectiveness

The study met its primary and secondary endpoints at 12 months.

In the Zephyr Valve Group, 47.7% of patients achieved an FEV_1 improvement of ≥15% from baseline to 12 months compared to 16.8% of patients in the Control Group ($p<0.001$).

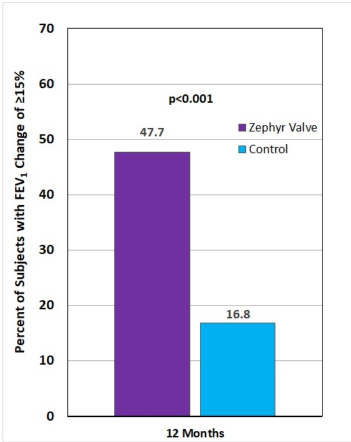


Figure shows the primary endpoint of FEV_1 Responders (FEV_1 improvement of ≥15%) at 12 months

The absolute change in FEV_1 showed significantly greater mean improvement (improved forced expiratory volume) in the Zephyr Valve Group compared to the Control Group (Δ Zephyr Valve - Control = +0.106L, $p<0.001$); the 6MWD showed significantly greater mean improvement (increased distance walked) in the Zephyr Valve Group compared to the Control Group (Δ Zephyr Valve - Control = +39.31 meters, $p=0.002$), and the SGRQ showed significantly greater mean improvement (score reduction) in the Zephyr Valve Group compared to the Control Group (Δ Zephyr Valve - Control = −7.05, $p=0.004$).

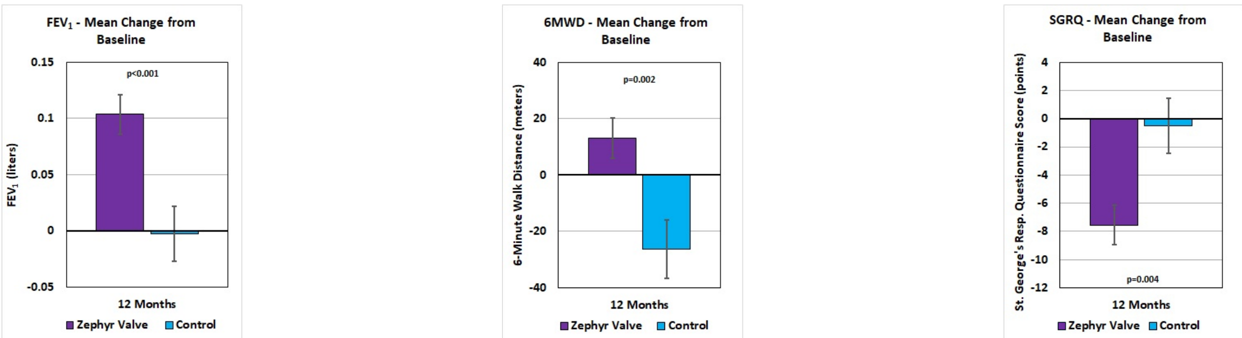


Figure above presents secondary endpoints as mean changes ± standard error of the mean (SEM) from baseline to 12 months for the Zephyr Valve and Control Groups

Target lobe volume reduction was successfully achieved with 84% of patients having volume reductions of 350 mL or greater, where 350 mL lobe volume reduction is considered to be the Minimal Clinically Important Difference (MCID). Across a broad range of effectiveness endpoints, patients in the Zephyr Valve Group showed a substantially higher rate of clinically meaningful benefits when compared to patients in the Control Group, with responder rates ranging from 42-62% for individual measures.

73% of patients in the Zephyr Valve Group had a clinically meaningful response to at least one of FEV_1, 6MWD and SGRQ score. Responder rates based on the individual MCID for the various endpoints at 12 months are shown in the figure below.

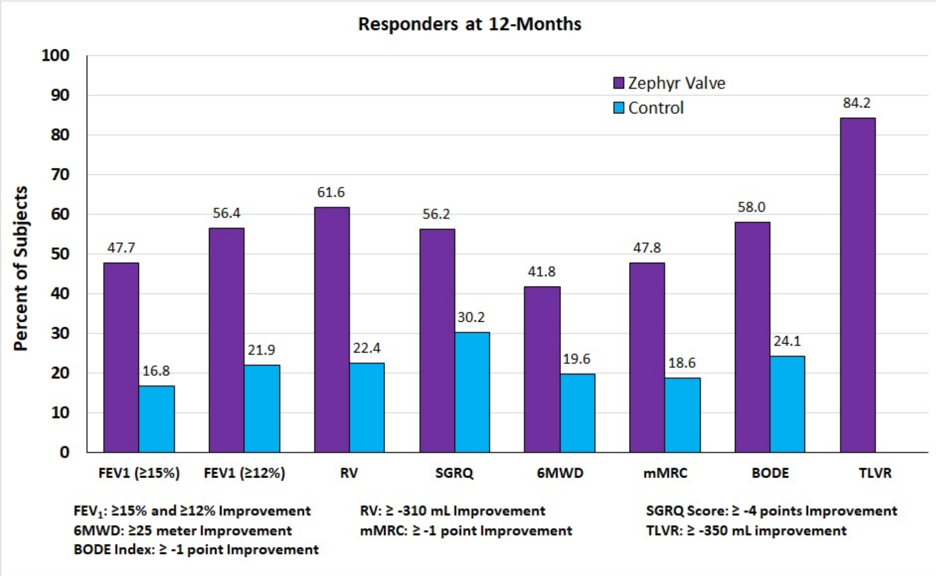


Figure above shows Responder rates based on individual MCID for various endpoints at 12 months

Safety

The safety of the treatment with Zephyr Valves was assessed by comparing adverse event profiles of patients in the Zephyr Valve Group and Control Group occurring over two time periods: Treatment Period (day of procedure to 45 days) and the Longer-Term Period (46 days after procedure to 12 months). Serious adverse events included pneumothorax, COPD exacerbation, pneumonia, respiratory failure and death.

Proportion of Patients Experiencing Pulmonary Serious Adverse Events Occurring in at Least 3% of Patients in Zephyr Valve and Control Groups

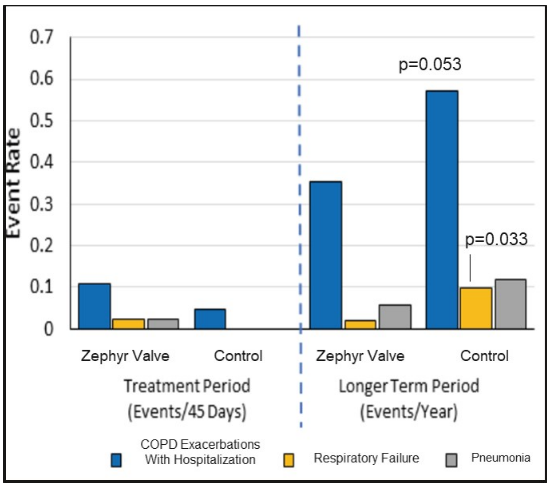
	Treatment Period 0 to 45 days			Longer-Term Period 46 days to 12 months		
	Zephyr Valve Group N=128	Control Group N=62	∆ Zephyr Valve - Control	Zephyr Valve N=128	Control N=62	∆ Zephyr Valve - Control
Death	3.1%	0%	3.1%	0.8%	1.6%	-0.8%
Pneumothorax	26.6%	0%	26.6%	6.6%	0%	6.6%
COPD Exacerbation	7.8%	4.8%	3.0%	23.0%	30.6%	-7.6%
Pneumonia	0.8%	0%	0.8%	5.7%	8.1%	-2.4%
Respiratory Failure	1.6%	0%	1.6%	0.8%	3.2%	-2.4%

There were a higher number of serious adverse events in the Zephyr Valve Group compared to the Control Group during the Treatment Period. The most common serious adverse events in the Zephyr Valve Group versus the Control Group during the Treatment Period were pneumothorax and COPD exacerbations.

The majority of pneumothoraces (76%) occurred within three days following a bronchoscopy procedure. Four deaths occurred in the Treatment Period in the Zephyr Valve Group and none in the Control Group. Three of the four deaths were deemed by the investigators to be definitely related to treatment with Zephyr Valves and the remaining one was deemed by the investigators to be probably related to treatment with Zephyr Valves. Each patient that died experienced pneumothorax, with three deaths directly attributed to the pneumothorax and the fourth death the result of respiratory failure after the pneumothorax had resolved. In order to more closely monitor patients, the study protocol was subsequently amended to keep patients in the hospital for five nights. Based on the full study data, current practice is to keep patients in hospital for a minimum of three nights post-treatment. Post-hoc analysis has helped us identify risk factors for the group of patients at higher risk of having a complex pneumothorax event (complex pneumothorax defined as requiring removal of all valves or resulting in death) should one occur. Such high-risk patients include those who are not treated in the most diseased lobe and have greater than 60% destruction of the untreated lung. All four patients who experienced a pneumothorax and died were within this high-risk group. Further, all four pneumothorax events occurred in subjects that were not treated in the most diseased lobe and had more than 60% emphysema destruction in the contralateral lung. This learning is incorporated in our physician training program for physicians to identify such high-risk patients and to consider alternative targets or other risk mitigation strategies. During the Longer-Term Period, there was one death (0.8%) in the Zephyr Valve Group from a COPD exacerbation, deemed by the investigators not to be related to treatment with Zephyr Valves, and one cardiac arrhythmia death in the Control Group (1.6%).

Patients who experienced a pneumothorax following treatment with Zephyr Valves and whose pneumothorax had been resolved, experienced meaningful clinical benefit once they recovered from the pneumothorax event, with benefits comparable to patients who did not experience such pneumothorax events.

In the Longer-Term Period, the Zephyr Valve Group showed a non-statistically meaningful trend towards a reduction in COPD exacerbations requiring hospitalization and statistically significant reductions in respiratory failure events.



There were a number of secondary bronchoscopy procedures (consistent with study protocol) either to adjust a valve or to manage adverse events. There were 11 adjustment procedures in 11 patients following verification of lobar occlusion from the HRCT-assessment at 45-days. There were 21 procedures purely for valve removal (related to an adverse event) in 17 patients, and ten valve replacement procedures in eight patients (valve replacement procedures could entail simultaneous removal and replacement, or replacement for a valve previously removed). Five patients experienced a pneumothorax event following a valve adjustment procedure. See also "Risk Factors—Risks Related to Our Business and Strategy—Use of the Zephyr Valve involves risks and may result in complications, including pneumothorax or death, and is contraindicated in certain patients, which may limit adoption and negatively affect our business, financial condition and results of operations."

Summary of the TRANSFORM Study

The TRANSFORM study was a company-sponsored, multicenter, prospective, randomized, controlled clinical trial of Zephyr Valve treatment in patients with heterogeneous severe emphysema and little to no collateral ventilation conducted at 17 study sites in Europe. The study was conducted between January 2014 and April 2017, and the results were published in September 2017 in the *American Journal of Respiratory and Critical Care Medicine.*

Key inclusion criteria were severe emphysema patients with heterogeneous disease (≥10 difference in destruction scores between the target and adjacent lobes), ex-smokers over 40 years of age, with post- BD FEV_1 between 15% and 45% predicted, TLC greater than 100% predicted, RV equal to or greater than 180% predicted, and a 6MWD between 100 and 450 meters and little to no collateral ventilation. Patients with two or more COPD exacerbations requiring hospitalization in the last year, known pulmonary hypertension, myocardial infarction or other cardiovascular events in prior six months, and prior lung transplantation, LVRS, bullectomy or lobectomy were excluded from the study. Eligible patients were randomly assigned at a 2:1 ratio into either the Zephyr Valve treatment plus medical management (Zephyr Valve Group) or medical management alone (which may include drug therapy, pulmonary rehabilitation and supplemental oxygen) (Control Group) (65 Zephyr Valve patients: 32 Control Group patients).

The Chartis System was used to confirm that all 97 patients had little to no collateral ventilation and would be likely responders to the Zephyr Valve treatment, and were evaluated initially at six months with follow-up for an additional six months.

Patients in both groups were observed at 45-day, three-month and six-month periods. Patients in the Control Group were required to complete a minimum six-month follow-up. Following their six-month evaluation, the Control Group patients had an option to receive Zephyr Valve treatment, if eligible, which is commercially available in Europe, or remain in the Control Group for an additional six months. Only two Control Group patients elected to continue for an additional six months and the other patients opted to seek Zephyr Valve treatment commercially.

The primary effectiveness endpoint was the percentage of patients in the Zephyr Valve Group meeting the MCID of ≥12% improved post- BD FEV_1 at three months post-treatment compared to the percentage of patients in the Control Group.

Other endpoints included additional measures of lung function, exercise capacity, breathlessness, hyperinflation, health status and quality of life measures. Adverse events and serious adverse events were evaluated for the Treatment Period (day of procedure to 45 days) and Longer-Term Period (46 days from procedure day to six months).

Results

Effectiveness

The study met its primary and secondary endpoints at three months.

At three months, 55% of patients on an ITT basis and 67% of patients on a per protocol (PP) basis achieved a ≥12% change in FEV_1 from baseline, compared to 6.5% for the ITT and 6.7% for the PP patients in the Control Group (p<0.001 for both). This was statistically superior to medical management alone.

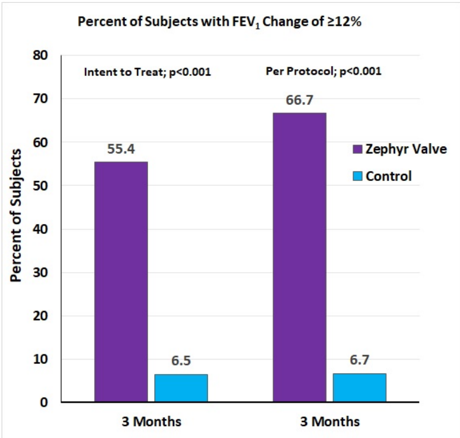
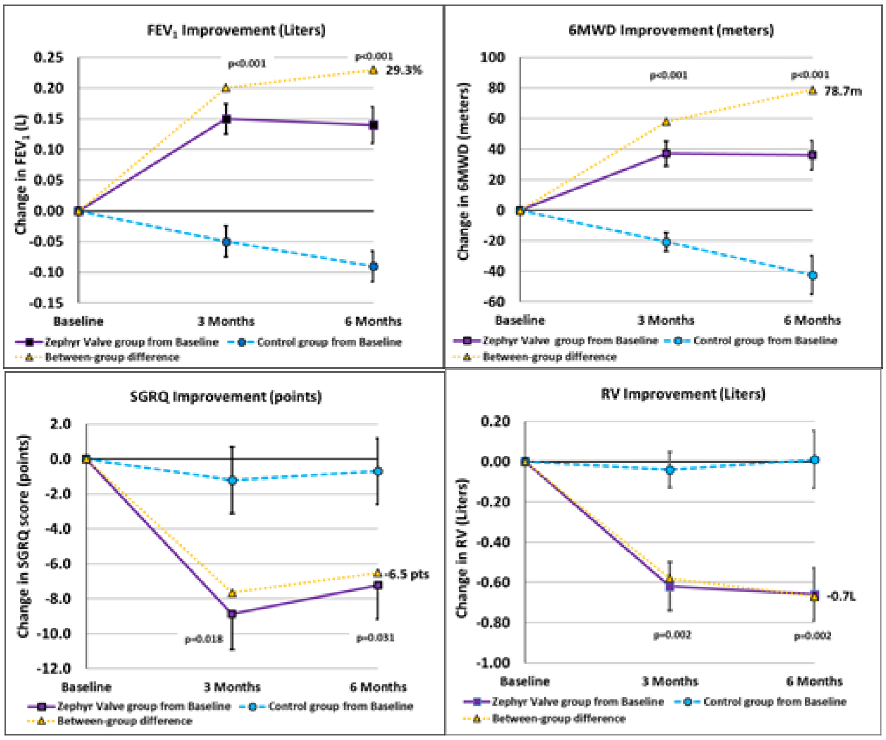
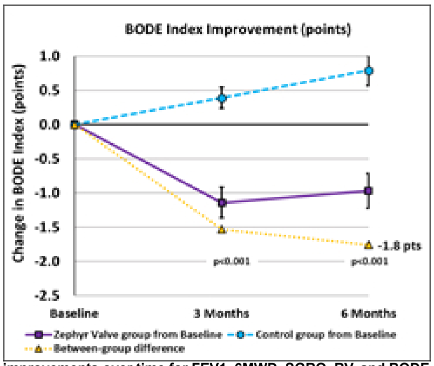


Figure above shows the responder rate (primary endpoint) for the Intention-to-Treat and Per Protocol Populations at three months

The study met its secondary endpoints, with durable and statistically significant benefits in favor of the Zephyr Valve Group out to six months across multiple measures. Lung function assessed by FEV_1 showed a 29% ($p<0.001$) improvement in the Zephyr Valve Group over the Control Group, exercise capacity assessed by 6MWD improved by 79 meters ($p<0.001$), quality of life assessed by the SGRQ score improved by 6.5 points ($p=0.031$), hyperinflation assessed by a decrease in residual volume improved by 670 mL ($p=0.002$), and health status assessed by the BODE Index improved by 1.75 points ($p<0.001$). Target lobe volume reduction was successfully achieved with 90% of patients having volume reductions of greater than MCID.





Figures above show the improvements over time for FEV1, 6MWD, SGRQ, RV, and BODE Index out to six months.

Safety

At six months, 47.7% patients in the Zephyr Valve Group compared to 9.4% patients in the Control Group ($p<0.001$) had a respiratory related serious adverse event, with most events occurring within 45 days of the procedure. In the Zephyr Valve Group, there were 13 pneumothorax events in 13 patients (20%) during the 45-day Treatment Period ($p=0.004$). None of the other respiratory serious adverse events were statistically different between groups during the same period. Over the longer term (46 days through six months), there was no difference in respiratory serious adverse events between groups. There was one death in the Zephyr Valve Group due to an in-hospital cardiac arrest as a complication of a pneumothorax and was deemed by the investigator to be related to treatment with Zephyr Valves. See also "Risk Factors—Risks Related to Our Business and Strategy—Use of the Zephyr Valve involves risks and may result in complications, including pneumothorax or death, and is contraindicated in certain patients, which may limit adoption and negatively affect our business, financial condition and results of operations."

Summary of the IMPACT Study

The IMPACT Study was a company sponsored, multicenter, randomized, controlled clinical trial of Zephyr Valves in patients with severe homogeneous emphysema at eight investigational sites in Europe. The study was conducted between August 2014 and March 2017, and the results of the primary endpoint at three months were published in August 2016 in the *American Journal of Respiratory and Critical Care Medicine.*

Key inclusion criteria were emphysema patients with homogeneous disease (<15 difference in destruction scores between the target and adjacent lobes), ex-smokers over 40 years of age, with post- BD FEV_1 between 15% and 45% predicted, TLC greater than 100% predicted, RV equal to or greater than 200% predicted, a 6MWD equal to or greater than 150 meters and little to no collateral ventilation. Patients with three or more COPD exacerbations requiring hospitalization in the last year, known pulmonary hypertension, myocardial infarction or other relevant cardiovascular events in prior six months, and prior LVR or LVRS, and greater than 20% difference in perfusion between the left and right lung were excluded from the study. Eligible patients were randomly assigned at a 1:1 ratio into either the Zephyr Valve procedure plus medical management (Zephyr Valve Group) or medical management alone (which may include drug therapy, pulmonary rehabilitation and supplemental oxygen) (Control Group) (43 Zephyr Valve patients: 50 Control Group patients).

The Chartis System was used to confirm that all 93 patients had little to no collateral ventilation and would be likely responders to the Zephyr Valve treatment, and were evaluated initially at six months with follow-up for an additional six months.

The primary effectiveness endpoint was the percentage change in FEV_1 at three months relative to baseline in the Zephyr Valve Group, compared to the Control Group.

Other endpoints included additional measures of lung function, exercise capacity and quality of life measures. Adverse events and serious adverse events were evaluated for the Treatment Period (day of procedure to 30 days), and Long-Term Period (31 days after procedure to six months).

Results

Effectiveness

The study met its primary effectiveness endpoint. The mean percent change in FEV_1 (L) from baseline to three months in the Zephyr Valve Group was an increase of 15.3% compared to a decrease of 3.4% in the Control Group. The mean group difference for the change in FEV_1 from baseline to three months was 18.8 ± 22.1% (mean ± SD; $p < 0.001$). Similar changes were observed in the ITT population. The mean percent change in FEV_1 (L) from baseline to three months in the Zephyr Valve Group was an increase of 13.7% compared to a decrease of 3.2% in the Control Group. The mean group difference (Zephyr Valve - Control) for the change in FEV_1 from baseline to three-months was 17.0 ± 21.4% (mean ± SD; $p < 0.001$).

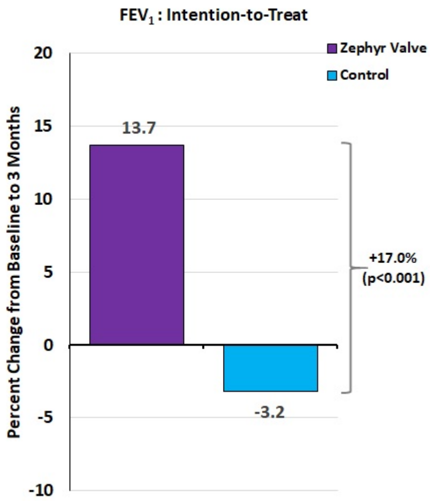


Figure above shows the percent change of FEV_1 from baseline (primary endpoint) for the ITT groups at three months

The study also met its secondary outcomes. There were statistically significant and clinically meaningful improvements from baseline in the Zephyr Valve Group versus the Control Group at three months and six months with differences between the Zephyr Valve Group and Control Group for FEV_1 (120 mL at 3 months and 120 mL at six months; p<0.001), RV (480 mL at three months and 430 mL at six months; p=0.011 and p=0.015, respectively), 6MWD (40 meters at three months and 28 meters at six months; p=0.002 and p=0.0156, respectively), SGRQ score (-9.6 at three months and -7.5 at six months; p<0.001), and Modified Medical Research Council (mMRC) Dyspnea Scale scores (-0.6 at three months and -0.4 at six months; p=0.01 and p=0.048, respectively). Target lobe volume reduction was successfully achieved with 89% of patients having volume reductions of greater than MCID.

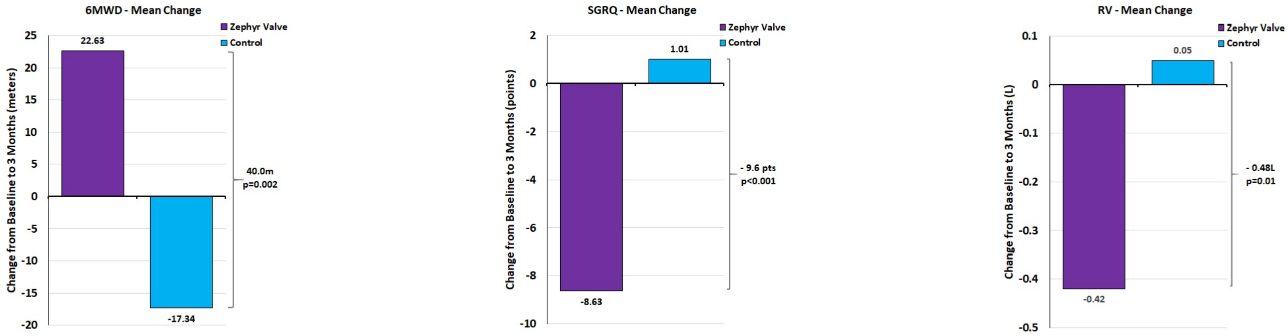


Figure above presents secondary endpoints as mean changes ± SEM from baseline to six months for the Zephyr Valve and Control Groups

Safety

There were a higher number of respiratory serious adverse events in the Zephyr Valve Group compared to the Control Group during the Treatment Period (day of procedure to 30 days; 44.2% patients versus 2.0% patients). The most common respiratory serious adverse events in the Zephyr Valve Group versus the Control Group during the Treatment Period were pneumothorax in 23.3% versus 0.0%, respectively; and COPD exacerbations in 14.0% versus 2.0% patients, respectively. All pneumothoraces were managed using standard techniques that included chest tube placement and careful observation. There were a comparable number of serious respiratory adverse events in the Zephyr Valve Group compared to the Control Group during the Longer-Term Period (31 days to six months; 34.9% patients versus 26.0% patients, respectively).

The most common respiratory adverse events in the Zephyr Valve Group versus Control Group during the Longer-Term Period were COPD exacerbations in 18.6% versus 20.0% patients, respectively; dyspnea in 4.7% versus 0.0% patients, respectively; pneumothorax in 4.7% versus 0.0% patients, respectively; pneumonia in 2.3% versus 4.0% patients, respectively; and hypercapnia in 0.0% versus 6.0% patients, respectively. There were no deaths in the Zephyr Valve Group and two deaths in the Control Group that occurred in the Longer-Term Period. There was one death in the Zephyr Valve Group that occurred beyond 12-months after the Zephyr Valve implantation following severe COPD exacerbation after an abdominal surgery and was not related to treatment with Zephyr Valves. See also "Risk Factors—Risks Related to Our Business and Strategy—Use of the Zephyr Valve involves risks and may result in complications, including pneumothorax or death, and is contraindicated in certain patients, which may limit adoption and negatively affect our business, financial condition and results of operations."

Summary of the STELVIO Study

The STELVIO study was an independent, non-company sponsored, randomized, controlled clinical trial conducted at a single center in the Netherlands that evaluated 68 patients with severe emphysema and hyperinflation. The study was conducted between June 2011 and November 2014, and the results of the primary endpoint were published in November 2015 in *The New England Journal of Medicine*.

Key inclusion criteria were severe emphysema patients with heterogeneous and homogeneous disease, ex-smokers over 35 years of age, with post- BD FEV$_1$ less than 60% predicted, TLC greater than 100% predicted, RV greater than 150% predicted, dyspnea score of equal to or greater than two on the mMRC Dyspnea Scale, a 6MWD equal to or greater than 140 meters, and little to no collateral ventilation. Key exclusion criteria were prior LVRS, lung transplantation or lobectomy and evidence of other disease that may compromise survival or would interfere with completion of study. Eligible patients were randomly assigned at a 1:1 ratio to either Zephyr Valve treatment plus medical management (Zephyr Valve Group) or medical management alone (which may include drug therapy, pulmonary rehabilitation and supplemental oxygen) (Control Group) (34 Zephyr Valve patients: 34 Control Group patients).

The Chartis System was used to confirm that all 68 patients had little to no collateral ventilation and would be likely responders to the Zephyr Valve treatment, and were evaluated initially at six months with follow-up for an additional six months.

The primary outcome measures included differences between groups for changes in FEV$_1$, Forced Vital Capacity (FVC) and 6MWD from baseline to six months.

Secondary outcome measures, among patients who completed the study, were improvements from baseline to six months in FEV$_1$, FVC, 6MWD, SGRQ score and other health related measures.

Results

Effectiveness

The study met its primary and secondary effectiveness outcomes.

There were significantly greater improvements in the Zephyr Valve Group than in the Control group from baseline to six months with a between group increase in FEV$_1$ of 140 mL (95% confidence interval (CI), 55 to 225), in FVC of 347 mL (95% CI, 107 to 588), in the 6MWD of 74 m (95% CI, 47 to 100) (p<0.01 for all comparisons). The data are depicted in the figure and table below. Target lobe volume reduction was successfully achieved with 88% of patients having volume reductions of greater than MCID.

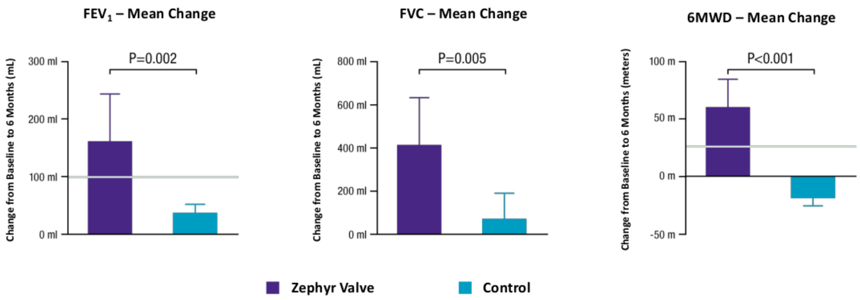


Figure above presents the co-primary endpoints as mean changes with 95% confidence intervals from baseline to six months for the Zephyr Valve and Control Groups

Effectiveness Outcomes for the Zephyr Valve and Control Groups at Six Months
Values are Mean Change from Baseline for ITT Population

	Zephyr Valve Group N=34	Control Group N=34	Difference Between Groups (Zephyr Valve - Control)
FEV_1 (%)	20.9	3.1	17.8
FVC (%)	18.3	4	14.4
6MWD (%)	19.6	-3.6	23.3

STELVIO was also the first randomized trial that evaluated outcomes in patients with homogeneous disease versus heterogeneous disease and showed that both groups benefited from treatment with Zephyr Valves. In general, the clinical outcomes after Zephyr Valve treatment were lower in the homogeneous patients compared to the heterogeneous patients but were still clinically meaningful (i.e., were greater than the MCID for each measure).

Effectiveness Outcomes for the Zephyr Valve Group who Completed the Study
Values are Mean Change from Baseline

	Homogeneous Emphysema N=29	Heterogeneous Emphysema N=22
FEV_1 (%)	20.1	32.6
RV (%)	-16.3	-16.6
6MWD (meters)	69	72
SGRQ score (points)	-13	-19

In subsequent follow-up of patients in the STELVIO study, these results were shown to be durable to at least one year. Furthermore, the BODE index at one year showed an improvement from baseline of -1.13 points (95% CI, -1.5 to -0.7; p <0.001); a reduction of more than one point in the BODE Index being associated with a decrease in mortality.

Safety

Over the six months, there were 23 serious adverse events in the Zephyr Valve Group, as compared with five in the Control group (p<0.001). Serious treatment related adverse events in the Zephyr Valve Group included pneumothorax (18% of patients) and events requiring valve replacement (12%) or removal (15%). There was one death in the Zephyr Valve Group due to end-stage COPD with respiratory failure 58 days after treatment which was deemed by the investigator to be unrelated to treatment with Zephyr Valves.

There was one death during the six-month to 12-month period in the Zephyr Valve Group due to a myocardial infarction (313 days after treatment) unrelated to treatment with Zephyr Valves. In the Control Group, there were two deaths recorded at 160 and 267 days after the screening visit, both due to COPD progression. See also “Risk Factors—Risks Related to Our Business and Strategy—Use of the Zephyr Valve involves risks and may result in complications, including pneumothorax or death, and is contraindicated in certain patients, which may limit adoption and negatively affect our business, financial condition and results of operations.”

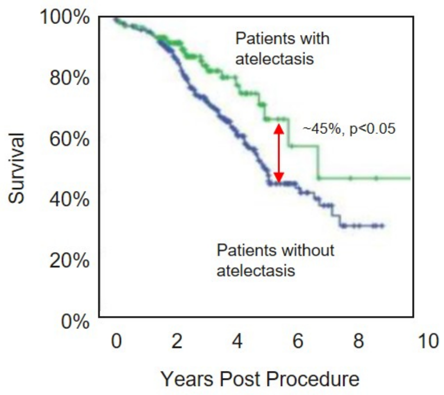
Other Clinical Trials

The VENT study was a multicenter randomized clinical trial conducted in the mid-2000s by Emphasys Medical evaluating the safety and effectiveness of the Zephyr Valve. The study enrolled 321 patients in the United States. While the study showed statistically significant improvement in FEV_1 and 6MWD (co-primary endpoints), these were only clinically significant in a post hoc subset of patients that had complete fissures (a surrogate for absence of collateral ventilation) and lobar occlusion. The study did not meet its primary endpoints.

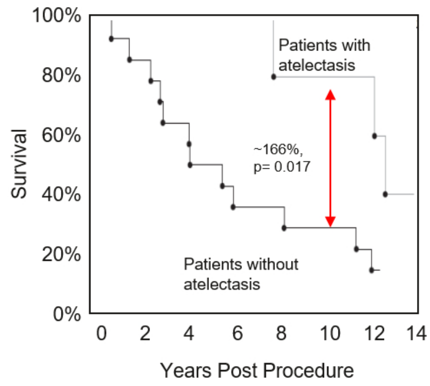
The BeLieVeR-HIFi study was a single center randomized, controlled, independent, non-company-sponsored study conducted in the early 2010s that enrolled 50 patients with complete fissures and severe heterogeneous emphysema.

Patients were randomized to treatment with Zephyr Valves and medical management or a sham procedure and medical management. While Chartis assessment was performed to assess collateral ventilation prior to the procedure, inclusion in the study was based on visual assessment of complete fissures. The study showed clinical benefit in the Zephyr Valve treated patients although the outcomes were better in patients in whom collateral ventilation was ruled out using the Chartis System.

We are not aware of any prospective data regarding survival rates of patients who have undergone endobronchial valve treatment. There are two survival studies, however, that retrospectively evaluate patients treated with endobronchial valves. These studies compared survival rates between patients with significant volume reduction in the treated lobe (also called atelectasis) against those who did not have atelectasis. In one study, the patient population consisted of 449 patients with either heterogeneous or homogeneous emphysema five years following treatment with Zephyr Valves or other endobronchial valves. The majority of patients in this study were treated with Zephyr Valves. The results of this study suggested that patients with atelectasis were approximately 45% more likely to survive than patients without. Another study of 19 patients with only heterogeneous emphysema ten years following treatment with Zephyr Valves suggested that patients with atelectasis were approximately 166% more likely to survive than patients without atelectasis. We believe these studies are relevant because treatment with Zephyr Valves is intended to cause atelectasis in poorly functioning, hyperinflated lobes of the lung. In addition, the results of these studies add to the body of evidence showing the benefits of atelectasis in patients with severe emphysema and hyperinflation, including the potential for increased survival rates when compared to valve treatment without atelectasis.



Gompelmann et. al (2019): Survival after Endoscopic Valve Therapy in Patients with Severe Emphysema. Respiration; 97; 145-152.



Garner et al (2016): Survival after Endobronchial Valve Placement for Emphysema: A 10-Year Follow-up Study. Amer J Respir Crit Care Med.194 (4): 519-521.

Our Commercial Strategy

We have established a stepwise approach to market development which centers on active engagement across three key stakeholders in addressing severe emphysema: hospitals, physicians and patients.

We sell Zephyr Valves primarily through a direct sales force that engages with pulmonologists in the United States, Europe and Asia Pacific. Zephyr Valves are typically implanted by an interventional pulmonologist at a hospital, and patients are often evaluated in a multi-disciplinary team approach that includes other lung physicians, radiologists, respiratory therapy specialists or surgeons. Our sales personnel work closely with these stakeholders to ensure quality outcomes. We offer an in-depth training program developed in conjunction with leading global thought leaders and the largest pulmonary society in the United States. Our sales personnel work with hospitals to leverage their existing resources to efficiently establish and market Zephyr Valves as a service line. Our sales territory managers also call on community physicians and pulmonary rehabilitation centers to raise awareness of Zephyr Valves as a treatment option.

As of June 30, 2020, we had 42 sales territory managers in the United States. As of June 30, 2020, we also had 28 sales territory managers outside of the United States, with 20 in Europe and eight in Asia Pacific. We seek to recruit territory managers with strong sales backgrounds, with direct experience developing markets with new technologies and an understanding of medical device reimbursement and the prior authorization process. In the United States, our territory managers are managed by region directors. We plan to expand our commercial organization, recruiting and training talented sales territory managers in existing and new markets in the United States to help facilitate further adoption and broaden awareness of Zephyr Valves. We believe investing in a scalable, efficient direct sales force and continuing the development of our marketing efforts will help us broaden adoption of our solution in order to drive revenue growth.

Our strategy is to identify territories with high unmet need, identify leading hospitals and work with champions of our solution to build emphysema centers of excellence. We believe there is a significant growth opportunity for hospitals to provide high quality comprehensive diagnosis and treatment for advanced COPD patients. We believe we can efficiently serve the United States market, focusing on approximately 500 high volume hospitals, of which we currently cover a small fraction.

We intend to continue to promote awareness of our solution through training and educating physicians, pulmonary rehabilitation centers, key opinion leaders and various medical societies on the proven clinical benefits of Zephyr Valves. We continue to develop our relationships with credible third parties, such as our partnership with the American College of Chest Physicians, on continuing medical education-accredited training and with the COPD Foundation on patient and physician education. We also intend to continue helping physicians in their outreach to patients and other healthcare providers. In addition, we intend to continue to publish additional clinical data in various industry and scientific journals, online and through presentations at various industry conferences. We believe that many patients who suffer from severe emphysema are eager for a minimally invasive option such as the Zephyr Valve. We also plan to continue building patient awareness through our direct-to-patient marketing initiatives, which include advertising, social media and online education. We also intend to continue helping physicians in their outreach to patients and other healthcare providers.

The objective of this outreach is to bring patients to our website, where they can find educational materials on Zephyr Valves, determine if they may be eligible, find contact information for physicians in their area and sign up for support and news.

We believe our patient outreach efforts have been effective in bringing potential patients to our website and facilitating contact with hospitals that provide more information about our solution. In the first half of 2020, we had over 400,000 visitors to our website; over 6,000 visitors used our website to find a physician or hospital that provides our solution in their area, and we registered more than 4,500 calls to such hospitals to schedule an appointment.

Commercial Activities Outside of the United States

We conduct our international business through direct sales in markets with established reimbursement and substantial market potential, and through a distributor-based sales model in smaller markets or markets where we are still developing reimbursement. Direct sales represented over 90% of our international sales in 2019 and for the six months ended June 30, 2020, which totaled $21.9 million and $6.3 million, respectively.

As of June 30, 2020, we had 28 sales territory managers in international markets in which we make direct sales, with 20 in Europe and eight in Asia Pacific, including in Australia, Austria, France, Germany, Italy, the Netherlands, Spain, Switzerland and the United Kingdom. We also maintain a direct sales presence in China to support our sub-distributors and distributors.

Our strategy is to offer limited distribution and develop champions of our solution in high potential markets, and as reimbursement becomes available, change from a distributor-based sales model to a direct sales model. We have successfully followed this approach in most markets outside the United States in which we sell and we anticipate following a similar approach in the future.

Third-Party Reimbursement

There are three key components for reimbursement in the United States: (1) coding, (2) payment and (3) coverage. Our patient reimbursement support team is responsible for all aspects of our reimbursement processes and initiatives. In the United States, our solution is reimbursed based on established Category I CPT and ICD-10 PCS codes and associated MS-DRG and APC payment groupings.

Coding

In the United States, we sell our products to hospitals. These customers in turn bill various third-party payors, such as commercial payors and government agencies, for the cost required to treat each patient.

Third-party payors require physicians and hospitals to identify the service for which they are seeking reimbursement by using standard codes for both physician and facility payments. "Coding" refers to distinct numeric and alphanumeric billing codes that are used by healthcare providers to report the provision of medical services procedures and the use of supplies for specific patients to payors. CPT codes are published by the American Medical Association and are used to report medical services and procedures performed by or under the direction of physicians. Medicare pays physicians for services based on submission of a claim using one or more specific CPT codes. Physician payment for procedures may vary according to site of service. Hospitals are reimbursed for inpatient procedures based on MS-DRG classifications derived from ICD-10-CM diagnosis and ICD-10 PCS codes that describe the patient's diagnoses and procedures performed during the hospital stay. MS-DRG classifications closely calibrate payment for groups of services based on the severity of a patient's illness and clinical cohesiveness of care. One single MS-DRG payment is intended to cover all hospital costs associated with treating a patient during his or her hospital stay, with the exception of physician charges associated with performing medical procedures, which are reimbursed through CPT codes and payments.

Payment

Payment refers to the amount paid to providers for specific procedures and supplies. Physician reimbursement under Medicare generally is based on a defined fee schedule (Physician Fee Schedule) through which payment amounts are determined by the relative values of the professional service rendered. Medicare provides reimbursement to our hospital customers as a lump sum intended to cover all costs under a single MS-DRG payment. Reimbursement from commercial payors is typically based on a similar methodology but rates vary depending on the procedure performed, the hospital, the commercial payor, contract terms and other factors.

The American Hospital Association Coding Clinic provided guidance on the use of ICD-10 PCS codes for endobronchial valve procedures in Q3 2019. These ICD-10 PCS codes map to the MS-DRG classifications for Major Chest Procedures, with national average reimbursement rates between $11,000 and $30,000, for the year 2020, depending on co-morbidities and complications. Payment for Zephyr Valve is expected to, on average, be sufficient to cover costs of the procedure.

If a patient is positive for collateral ventilation following an assessment by the Chartis System, the patient is discharged the same day and the procedure will be billed as an outpatient procedure. The CPT code used to provide payment for the Chartis procedure, for patients who do not receive the Zephyr Valve due to collateral ventilation, maps to an Ambulatory Payment Classification, with a national average payment of $5,148. If a patient receives the

Zephyr Valve, there is no separate reimbursement for the Chartis System procedure; rather, the provider receives payment for the endobronchial valve procedures as described above.

The national Medicare average payment for physicians performing the endobronchial valve procedure is generally consistent with other complex bronchoscopic procedures.

Commercial Payor and Government Program Coverage

Coverage refers to decisions made by commercial third-party payors and government programs as to whether or not to provide their members access to and pay for specific procedures and related supplies, and if so, what conditions, such as specific diagnoses and clinical indications, are covered. Commercial payors typically base coverage decisions on reviews of clinical evidence presented in published peer-reviewed medical literature.

A majority of our patients are Medicare-eligible beneficiaries. Without a national coverage determination (NCD) or a local coverage determination (LCD), Medicare claims are managed by local carriers under Medicare's medical necessity requirement. We estimate that roughly 75% of the potential Zephyr Valve patient population are Medicare/Medicaid beneficiaries of which approximately 25% have managed Medicare/Medicaid and the remaining 50% have traditional Medicare/Medicaid. Approximately 25% of the potential Zephyr Valve patient population is under third-party commercial payor policies. A key element of our strategy remains to broaden our coverage by private third-party payor policies.

As of June 30, 2020, commercial payors such as Aetna, Humana, Priority Health and Emblem Health have issued positive coverage policies for endobronchial valve procedures. United Healthcare removed the endobronchial valve codes from their non-covered list, and, as such, no longer considers the procedure unproven or experimental. Other commercial payors, such as many plans in the Blue Cross Blue Shield family of plans, do not yet consider our solution medically necessary, but these same plans are approving pre-authorization requests on a case-by-case basis. We continue to engage with commercial payors to establish positive national coverage policies by highlighting our compelling and robust clinical data, unique patient selection tools, favorable cost profile to more invasive options, increased patient demand and support from global treatment recommendations for the management of COPD and emphysema.

Prior Authorization Approval Process

A second key element of our reimbursement strategy includes leveraging our patient reimbursement support team and knowledge of the published data to assist patients and physicians in obtaining appropriate prior authorization approvals in advance of treatment. We believe our patient reimbursement support team is highly effective in working with patients and physicians to obtain appropriate prior authorizations for the Zephyr Valve treatment even when a non-coverage policy exists. We believe patients and providers will continue to benefit from support through the prior authorization process until widespread coverage is established across most commercial payors.

Reimbursement Outside of the United States

Outside of the United States, reimbursement levels vary significantly by country and by patient. Reimbursement is obtained from a variety of sources, including government sponsors, hospital budgets or private health insurance plans, or combinations thereof. We have established reimbursement access in countries across Europe and Asia Pacific, including Australia, Belgium, France, Germany, the Netherlands, South Korea, the United Kingdom and other countries.

Research, Development and Clinical Programs

Our research and development team continues to design, develop and test new innovations to improve patient outcomes and expand our addressable market. We also work with external vendors in the design and testing of new technologies.

Since the early development of the Zephyr Valve, our company has produced a stream of innovations to increase the success rate of using the Zephyr Valve. This includes innovations in our airway sizing and delivery catheters, the introduction of new sizes of Zephyr Valves, improvements to the user interface of the Chartis System to accommodate a variety of anesthesia options and the StratX Platform to assist with patient selection and procedure planning.

We are in discussions with the FDA regarding the potential use of Zephyr Valves for the management of persistent air leaks. We believe there are approximately 7,000 patients who suffer from a persistent air leak per year in the United States that could benefit from treatment with Zephyr Valves.

Our pipeline of products that we are currently considering includes innovations in image analysis to support advanced patient selection and optimize patient outcomes, catheter technologies to improve valve deliverability and reduce procedure time and the AeriSeal system to address the needs of a portion of the one million global severe emphysema patients who are not eligible for Zephyr Valves due to collateral ventilation.

AeriSeal is a polymeric foam that can be delivered via a bronchoscope to a targeted region of the lung to induce an inflammatory response and reduce volume in the treated area. We intend to submit an IDE to the FDA for commencing a clinical trial with the AeriSeal system. We have only conducted initial feasibility research on AeriSeal to date. We believe that positive results from this clinical trial would enable the treatment of patients with collateral ventilation, which would complement the screening of patients for Zephyr Valves. We have secured CE mark and Therapeutic Goods Administration approval in Australia for AeriSeal and have completed initial feasibility research. We further have funded a feasibility study using AeriSeal to expand the number of patients that can be treated with Zephyr Valves and are exploring additional studies. If successfully developed and approved, AeriSeal could further expand the addressable market of our solution.

For the years ended December 31, 2018 and December 31, 2019, we incurred research and development expenses, including our clinical trials, of $7.0 million and $6.0 million, respectively. For the six months ended June 30, 2019 and June 30, 2020, we incurred research and development expenses, including our clinical trials, of $3.0 million and $3.0 million, respectively.

Competition

Our industry is highly competitive and subject to rapid change from the introduction of new products and technologies and other activities of industry participants.

We are positioning our solution as an alternative to existing treatments of severe emphysema. These treatments include medical management, other minimally invasive treatments, LVRS and lung transplantations. The major competitive products include the Spiration Valve System (Olympus Corporation) and the InterVapor System (Broncus Medical, Inc.; not approved for use in the United States). The Spiration Valve System is an endobronchial technology designed to offer patients with severe emphysema a minimally invasive treatment option for lung volume reduction by redirecting air away from diseased areas of the lung to healthier tissue so that patients may breathe easier. Like Zephyr Valves, the Spiration Valve System is indicated to treat patients with heterogeneous emphysema; however, the Spiration Valve System is contraindicated for patients with homogeneous emphysema. We believe our solution competes favorably with the Spiration Valve System for several reasons, including the strength of our published clinical data, differentiated patient selection tools and our comprehensive technical and reimbursement support. InterVapor System offers a non-surgical and non-implant therapy developed for lung disease including emphysema and lung cancer where vapor ablation is simply the application of heated pure water to tissue.

Some of our current or future competitors may have several competitive advantages, including established relationships with pulmonologists who commonly treat patients with emphysema, significantly greater name recognition and significantly greater sales and marketing resources.

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

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

- patient outcomes and adverse event rates;
- product safety, reliability and durability;
- patient experience;
- effective marketing to and education of patients, physicians and hospitals;
- acceptance by treating physicians and referral sources;
- physician learning curve;
- ease-of-use and reliability;
- patient recovery time and level of discomfort;
- economic benefits and cost savings;
- availability of coverage and adequate reimbursement; and
- strength of clinical evidence.

In addition to existing competitors, other companies may acquire or in-license competitive products and could directly compete with us. These competitors may also try to compete with us on price both directly, through rebates and promotional programs to high volume physicians and coupons to patients, and indirectly, through attractive product bundling with complementary products that offer convenience and an effectively lower price compared to the total price of purchasing each product separately. Larger competitors may also be able to offer greater customer loyalty benefits to encourage repeat use of their products and finance a sustained global advertising campaign to compete with commercialization efforts of our products. Our competitors may seek to discredit our products by challenging our short operating history or relatively limited number of scientific studies and publications. Smaller companies could also launch new or enhanced products and services that we do not offer and that could gain market acceptance quickly. Additionally, certain of our competitors may challenge our intellectual property, may develop additional competing or superior technologies and processes and compete more aggressively and sustain that competition over a longer period of time than we could. Our technologies and products may be rendered obsolete or uneconomical by technological advances or entirely different approaches developed by one or more of our competitors. As more companies develop new intellectual property in our market, there is the possibility of a competitor acquiring patents or other rights that may limit our ability to update our technologies and products which may impact demand for our products.

Intellectual Property

We rely on a combination of patent, copyright, trademark and trade secret laws and confidentiality and invention assignment agreements to protect our intellectual property rights. As of June 30, 2020, we had 39 patent families in force worldwide. As of June 30, 2020, we had rights to 61 issued United States patents, 15 pending United States patent applications, 142 issued foreign patents and 13 pending foreign patent applications. Our most material foreign patents issued and patent applications pending are in the European Union, France, Germany, Japan and the United Kingdom. Our patents cover aspects of our current Zephyr Valve, loading system, airway sizing, EDC, Chartis System, a method of using AeriSeal and, future product concepts. The term of individual patents depends on the legal term for patents in the countries in which they are granted. In most countries, including the United States, the patent term is generally 20 years from the earliest claimed filing date of a nonprovisional patent application in the applicable country. Our patents expire between 2020 and 2037. We have applied to the U.S. Patent and Trademark Office (USPTO) seeking an extension for the term of a material Zephyr Valve patent from 2023 to 2027 under the Patent Term Extension which allows additional term to be added to a patent to compensate for the FDA approval process. Once a patent expires, the protection ends, and the invention covered by the patent enters the public domain; that is, anyone can commercially exploit the invention without infringing the patent.

There is no active patent litigation involving any of our patents and we have not received any notices claiming that our activities infringe a third party's patent.

We cannot guarantee that patents will be issued from any of our pending applications or that, if patents are issued, they will be of sufficient scope or strength to provide meaningful protection for our technology. Notwithstanding the scope of the patent protection available to us, a competitor could develop treatment methods or devices that are not covered by our patents. Furthermore, numerous United States and foreign-issued patents and patent applications owned by third parties exist in the fields in which we are developing products. Because patent applications can take many years to publish, there may be applications unknown to us, which may later result in issued patents that our existing or future products or technologies may be alleged to infringe.

There has been substantial litigation regarding patent and other intellectual property rights in the medical device industry. In the future, we may need to engage in litigation to enforce patents issued or licensed to us, to protect our trade secrets or know-how, to defend against claims of infringement of the rights of others or to determine the scope and validity of the proprietary rights of others. Litigation could be costly and could divert our attention from other functions and responsibilities. Furthermore, even if our patents are found to be valid and infringed, a court may refuse to grant injunctive relief against the infringer and instead grant us monetary damages or ongoing royalties. Such monetary compensation may be insufficient to adequately offset the damage to our business caused by the infringer's competition in the market. Adverse determinations in litigation could subject us to significant liabilities to third parties, require us to seek licenses from third parties or could prevent us from manufacturing, selling or using the product accused of infringement, any of which could severely harm our business. See "Risk Factors—Risks Related to our Intellectual Property" for additional information regarding these and other risks related to our intellectual property portfolio and their potential effect on us.

We also rely upon trademarks to build and maintain the integrity of our brand. As of June 30, 2020, we had eight registered trademark filings, some of which may apply to multiple countries, and several pending trademark applications in various countries.

We also rely, in part, upon unpatented trade secrets, know-how and continuing technological innovation, and licensing arrangements, to develop and maintain our competitive position. We protect our proprietary rights through a variety of methods, including confidentiality and assignment agreements with suppliers, employees, consultants and others who may have access to our proprietary information.

Cross-Licensing Agreement with Spiration/Olympus

In January 2005, Emphasys Medical (Emphasys), a company we later acquired, entered into a cross-license agreement (Spiration Cross-License) with Spiration, Inc. (Spiration) (later acquired by Olympus Medical Systems Corp.). Since both companies were developing products in the same field, they entered into this agreement to minimize the risk of intellectual property disputes in the future and their associated cost. When we acquired Emphasys in 2009, we became the successor-in-interest to Emphasys' rights under the Spiration Cross-License. Under the agreement, each company non-exclusively licensed the other party to make, have made (solely for such other party), sell, offer for sale, import and export specific products under their respective patent portfolio at that time that covers such products or a method of use thereof. The license granted to us by Spiration is limited to devices where the outer perimeter of the device seals with the airway wall and the device allows fluid flow only through one or more openings in the device radially inward of such outer perimeter. It does not give us a license under Spiration's patent rights to valve devices that allow fluid flow only between the outer perimeter of the device and the airway wall. Similarly, the license granted to Spiration by us is limited to devices that allow fluid flow only between the outer perimeter of the device and the airway wall. It does not give Spiration a license under our patent rights to make or sell valve devices where the outer perimeter of the device seals with the airway wall and the device allows fluid flow only through one or more openings in the device radially inward of such outer perimeter. The licenses cannot be sublicensed. Furthermore, each license also includes a covenant not to sue the other party for infringement with respect to specified product elements, designs and features. The Spiration Cross-License can be terminated by either party upon 60 days' written notice to the other in the event certain patents are no longer owned by the other party or such patents are no longer in force; provided, that, the parties are required to negotiate in good faith during such 60-day notice period to attempt to enter into a replacement cross-license prior to such termination. Neither party may assign or otherwise transfer the Spiration Cross-License without the written consent of the other party, except in connection with certain change-of-control transactions. We do not have any relationship with Spiration other than with respect to this cross-license agreement.

Manufacturing and Supply

We manufacture all our products — valves, delivery catheters, balloon catheters and the Chartis System console — at our headquarters located at 700 Chesapeake Drive, Redwood City, California 94063 where we lease approximately 25,000 square feet of space. Our lease terminates on July 31, 2025. This facility supports production and distribution operations, including manufacturing, quality control, raw material and finished goods storage. We have manufactured all our products at this facility for over 10 years and to date we have manufactured over 80,000 Zephyr Valves. We also store finished goods at our facilities located at 250 Chesapeake Drive, Redwood City, California 94063, where we lease approximately 17,000 of square feet of space, and at 200 Chesapeake Drive, Redwood City, California 94063, where we lease approximately 8,000 square feet of space, under a sublease agreement that terminates on May 31, 2024. The sublease includes a mutual early termination option applicable to the 200 Chesapeake Drive facility starting January 1, 2022.

We rely on a combination of in-house processing and third-party suppliers for raw materials and components. We have supply agreements with a few critical suppliers while procuring most of our materials on a purchase order basis. Suppliers are routinely evaluated based on industry standards including on-site audits, as required, to be approved. We have a strict change control policy with our suppliers to ensure that no design or process changes are made without our prior approval. Based on our prior experience with such suppliers to manufacture products for commercialization both inside and outside the United States, we believe these suppliers are capable of continuing to meet our specifications and maintaining quality. Several components used in our devices rely on single source suppliers and we routinely prioritize, evaluate and qualify backup sources. We typically maintain several months of product in inventory however if one or more of our single source suppliers were to encounter a manufacturing issue or chooses to end supply, we estimate that some of our custom components could take between one and two years to qualify a second source supplier in all markets. The manufacture of AeriSeal, which is still in development, is completely outsourced to a contract manufacturer. The StratX Platform's QCT service is currently outsourced as well. We host the customer-facing web portal for the StratX Platform's QCT service while using a third-party cloud service provider to direct CT scan uploads from customers to qualified radiological image analysis providers.

We perform the final assembly, inspection, testing, packaging and product release testing for the Zephyr Valve, the EDC and Chartis System at our headquarters in Redwood City. These products are sterilized using ethylene oxide at a qualified sterilization supplier in Los Angeles, California. In the United States, we generally ship products from our headquarters and secondary facilities in Redwood City to our direct sales territory managers, who deliver these products to our hospital customers. Once they are trained and proficient in the procedure, we may also sell our products directly to our hospital customers. Internationally, we ship our products to a qualified third-party logistics provider in the Netherlands who, in turn, may either ship directly to our customers in Europe, Australia and other international markets on a consignment basis or directly to our sales territory managers in these countries who then sell these products to our customers. We also ship from our Redwood City facilities to distributors in Asia Pacific and other international markets.

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

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

Our failure, or the failure of our third-party suppliers, to maintain acceptable quality requirements could result in the shutdown of our manufacturing operations or the recall of our products. If one of our suppliers fails to maintain acceptable quality requirements, we may have to qualify a new supplier, which could adversely affect manufacturing of our products and result in manufacturing delays as well as have a material adverse effect on our business and financial condition.

Our quality management system in our Redwood City manufacturing facility is currently ISO 13485:2016 certified, MDD certified and licensed by the California Department of Public Health (CDPH) Food and Drug Branch. Our manufacturing facility is an FDA-registered medical device establishment.

The FDA conducted a total of two establishment inspections of our manufacturing facility in 2014 and 2016. We believe that we are in compliance, in all material respects, with all applicable FDA and QSR requirements.

Manufacturing of the materials and components of our products are provided by approved suppliers, all of which are single source suppliers of key components, sub-assemblies and materials. The suppliers for the products are evaluated, qualified and approved through a stringent supplier management program, which includes various evaluations, assessments, qualifications, validations, testing and inspection to ensure the supplier can meet acceptable quality requirements. We implement a strict change control policy with our key suppliers to ensure that no component or process changes are made without our prior approval.

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

Government Regulation

United States Food and Drug Administration

Our products and operations are subject to extensive and ongoing regulation by the FDA under the Federal Food, Drug, and Cosmetic Act of 1938 and its implementing regulations (FDCA), as well as other federal and state regulatory bodies in the United States. The laws and regulations govern, among other things, product design and development, pre-clinical and clinical testing, manufacturing, packaging, labeling, storage, record keeping and reporting, clearance or approval, marketing, distribution, promotion, import and export and post-marketing surveillance.

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

Device Classification

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

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

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

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

The Zephyr Valve is a Class III device that has received FDA PMA approval.

The Investigational Device Exemption Process

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

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

- the FDA or other regulatory authorities do not approve a clinical trial protocol or a clinical trial, or place a clinical trial on hold;
- patients do not enroll in clinical trials at the rate expected;
- patients do not comply with trial protocols;
- patient follow-up is not at the rate expected;
- patients experience adverse events;
- patients die during a clinical trial, even though their death may not be related to the products that are part of the trial;
- device malfunctions occur with unexpected frequency or potential adverse consequences;
- side effects or device malfunctions of similar products already in the market that change the FDA's view toward approval of new or similar PMAs or result in the imposition of new requirements or testing;
- IRBs and third-party clinical investigators may delay or reject the trial protocol;
- third-party clinical investigators decline to participate in a trial or do not perform a trial on the anticipated schedule or consistent with the clinical trial protocol, investigator agreement, investigational plan, good clinical practices, the IDE regulations, or other FDA or IRB requirements;
- third-party investigators are disqualified by the FDA;
- we or third-party organizations do not perform data collection, monitoring and analysis in a timely or accurate manner or consistent with the clinical trial protocol or investigational or statistical plans, or otherwise fail to comply with the IDE regulations governing responsibilities, records and reports of sponsors of clinical investigations;
- third-party clinical investigators have significant financial interests related to us or our study such that the FDA deems the study results unreliable, or we or third-party clinical investigators fail to disclose such interests;
- regulatory inspections of our clinical trials or manufacturing facilities, which may, among other things, require us to undertake corrective action or suspend or terminate our clinical trials;
- changes in government regulations or administrative actions;
- the interim or final results of the clinical trial are inconclusive or unfavorable as to safety or effectiveness; or
- the FDA concludes that our trial design is unreliable or inadequate to demonstrate safety and effectiveness.

The PMA Approval Process

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

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

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

If the FDA evaluation of a PMA is favorable, the FDA will issue either an approval letter, or an approvable letter, the latter of which usually contains a number of conditions that must be met in order to secure final approval of the PMA. When and if those conditions have been fulfilled to the satisfaction of the FDA, the agency will issue a PMA approval letter authorizing commercial marketing of the device, subject to the conditions of approval and the limitations established in the approval letter. If the FDA's evaluation of a PMA application or manufacturing facilities is not favorable, the FDA will deny approval of the PMA or issue a not approvable letter. The FDA also may determine that additional tests or clinical trials are necessary, in which case the PMA approval may be delayed for several months or years while the trials are conducted and data is submitted in an amendment to the PMA, or the PMA is withdrawn and resubmitted when the data are available. The PMA process can be expensive, uncertain and lengthy and a number of devices for which the FDA approval has been sought by other companies have never been approved by the FDA for marketing.

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

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

Pervasive and Continuing Regulation

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

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

We have registered with the FDA as a medical device manufacturer and have obtained a manufacturing license from the CDPH. The FDA and CDPH have broad post-market and regulatory enforcement powers. We are subject to unannounced inspections by the FDA and the Food and Drug Branch of CDPH to determine our compliance with the QSR and other regulations, and these inspections may include the manufacturing facilities of our third-party suppliers. Additionally, our Notified Body, the BSI, regularly inspects our manufacturing, design and operational facilities to ensure ongoing ISO 13485 compliance in order to maintain our CE mark. Failure to comply with applicable regulatory requirements can result in enforcement action by the FDA or other regulatory bodies, which may include any of the following sanctions:

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

European Union

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

Health Insurance Portability and Accountability Act

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

In addition, various states, such as California and Massachusetts, have implemented similar privacy laws and regulations, such as the California Confidentiality of Medical Information Act, that impose restrictive requirements regulating the use and disclosure of health information and other personally identifiable information. In addition to fines and penalties imposed upon violators, some of these state laws also afford private rights of action to individuals who believe their personal information has been misused. California’s patient privacy laws, for example, provide for penalties of up to $250,000 and permit injured parties to sue for damages. The interplay of federal and state laws may be subject to varying interpretations by courts and government agencies, creating complex compliance issues and potentially exposing us to additional expense, adverse publicity and liability. The compliance requirements of these laws, including additional breach reporting requirements, and the penalties for violation vary widely, and new privacy and security laws in this area are evolving. Requirements of these laws and penalties for violations vary widely.

If we or our operations are found to be in violation of HIPAA, HITECH or their implementing regulations, and similar state laws, we may be subject to significant penalties, including civil, criminal and administrative penalties, fines, imprisonment and exclusion from participation in federal or state healthcare programs, and the curtailment or restructuring of our operations. In addition, HITECH created four new tiers of civil monetary penalties, amended HIPAA to make civil and criminal penalties directly applicable to Business Associates, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorney's fees and costs associated with pursuing federal civil actions.

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

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

Anti-Kickback Statutes

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

The definition of "remuneration" has been broadly interpreted to include anything of value, including, for example, gifts, certain discounts, the furnishing of free supplies, equipment or services, credit arrangements, payment of cash and waivers of payments. Several courts have interpreted the statute's intent requirement to mean that if any one purpose of an arrangement involving remuneration is to induce referrals of federal healthcare covered businesses, the statute has been violated. Violations of the federal Anti-Kickback Statute may result in civil monetary penalties up to $100,000 for each violation, plus up to three times the remuneration involved. Violations can also result in criminal penalties, including criminal fines of up to $100,000 and imprisonment of up to ten years. Similarly, violations can result in exclusion from participation in government healthcare programs, including Medicare and Medicaid. Additionally, the intent standard under the federal Anti-Kickback Statute was amended by the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010 (Affordable Care Act) to a stricter standard such that a person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation. Further, the Affordable Care Act codified case law that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the civil False Claims Act (FCA).

There are a number of statutory exceptions and regulatory "safe harbors" protecting some common activities from prosecution, but the exceptions and safe harbors are drawn narrowly and require strict compliance to offer protection. The failure of a transaction or arrangement to fit precisely within one or more safe harbors does not necessarily mean that it is illegal or that prosecution will be pursued. However, conduct and business arrangements that do not fully satisfy an applicable safe harbor may result in increased scrutiny by government enforcement authorities such as the HHS Office of the Inspector General (OIG).

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

Government officials have focused their enforcement efforts on the marketing of healthcare services and products, among other activities, and recently have brought cases against companies, and certain individual sales, marketing and executive personnel, for allegedly offering unlawful inducements to potential or existing customers in an attempt to procure their business.

Federal False Claims Laws

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

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

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

Civil Monetary Penalties

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

Open Payments

The Physician Payments Sunshine Act (Open Payments), enacted as part of the Affordable Care Act, requires certain pharmaceutical, medical device and medical supply manufacturers covered by Medicare, Medicaid or the Children’s Health Insurance Program to report annually to CMS: payments and transfers of value to physicians, certain other healthcare providers, teaching hospitals, and applicable manufacturers and group purchasing organizations, as well as to report annually ownership and investment interests held by physicians and their immediate family members. Failure to submit required information may result in civil monetary penalties of $11,052 per failure up to an aggregate of $165,786 per year (or up to an aggregate of $1.105 million per year for “knowing failures”), for all payments, transfers of value or ownership or investment interests that are not timely, accurately and completely reported in an annual submission, and may result in liability under other federal laws or regulations. Effective January 1, 2022, these reporting obligations will extend to include transfers of value made and ownership and investment interests held in the previous year to certain non-physician providers, such as physician assistants and nurse practitioners. We are subject to Open Payments and the information we disclose may lead to greater scrutiny, which may result in modifications to established practices and additional costs. Additionally, similar reporting requirements have also been enacted on the state level domestically, and an increasing number of countries worldwide either have adopted or are considering similar laws requiring transparency of interactions with healthcare professionals.

Foreign Corrupt Practices Act

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

International Laws

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

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

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

United States Centers for Medicare and Medicaid Services

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

CMS has established guidelines for the coverage and reimbursement of certain products and procedures by Medicare. In general, in order to be reimbursed by Medicare, a healthcare procedure furnished to a Medicare beneficiary must be reasonable and necessary for the diagnosis or treatment of an illness or injury, or to improve the functioning of a malformed body part. The methodology for determining coverage status and the amount of Medicare reimbursement varies based upon, among other factors, the setting in which a Medicare beneficiary received healthcare products and services. Any changes in federal legislation, regulations and policy affecting CMS coverage and reimbursement relative to the procedure using our products could have a material effect on our performance. While no NCD or LCD exists for endobronchial valves currently, CMS could develop an NCD, or one or more Medicare contractors could develop an LCD that either restricts coverage or restricts the patient population deemed appropriate for the treatment.

CMS also administers the Medicaid program, a cooperative federal/state program that provides medical assistance benefits to qualifying low income and medically needy persons. State participation in Medicaid is optional, and each state is given discretion in developing and administering its own Medicaid program, subject to certain federal requirements pertaining to payment levels, eligibility criteria and minimum categories of services. The coverage, method and level of reimbursement vary from state to state and is subject to each state's budget restraints. Changes to the availability of coverage, method or level of reimbursement for relevant procedures may affect future revenue negatively if reimbursement amounts are decreased or discontinued.

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

United States Health Reform

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

The implementation of the Affordable Care Act in the United States, for example, has changed healthcare financing and delivery by both governmental and private insurers substantially, and affected medical device manufacturers significantly. The Affordable Care Act imposed, among other things, a 2.3% federal excise tax, with limited exceptions, on any entity that manufactures or imports Class I, II and III medical devices offered for sale in the United States that began on January 1, 2013. However, the 2020 federal spending package permanently eliminated, effective January 1, 2020, the Affordable Care Act’s mandated medical device excise tax. The Affordable Care Act also provided incentives to programs that increase the federal government’s comparative effectiveness research, and implemented payment system reforms including a national pilot program on payment bundling to encourage hospitals, physicians and other providers to improve the coordination, quality and efficiency of certain healthcare services through bundled payment models. Additionally, the Affordable Care Act has expanded eligibility criteria for Medicaid programs and created a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research. There remain judicial and Congressional challenges to certain aspects of the Affordable Care Act, as well as efforts by the Trump administration to repeal or replace certain aspects of the Affordable Care Act. Since January 2017, President Trump has signed several Executive Orders and other directives designed to delay the implementation of certain provisions of the Affordable Care Act. Concurrently, Congress has considered legislation that would repeal or repeal and replace all or part of the Affordable Care Act. While Congress has not passed comprehensive repeal legislation, it has enacted laws that modify certain provisions of the Affordable Care Act such as removing penalties, starting January 1, 2019, for not complying with the Affordable Care Act’s individual mandate to carry health insurance and delaying the implementation of certain fees mandated by the Affordable Care Act. On December 14, 2018, a Texas U.S. District Court Judge ruled that the Affordable Care Act is unconstitutional in its entirety because the individual mandate was repealed by Congress as part of the Tax Cuts and Jobs Act of 2017. Additionally, on December 18, 2019, the U.S. Court of Appeals for the 5th Circuit upheld the District Court ruling that the individual mandate was unconstitutional and remanded the case back to the District Court to determine whether the remaining provisions of the Affordable Care Act are invalid as well. On March 2, 2020, the United States Supreme Court granted the petitions for writs of certiorari to review this case, and has allotted one hour for oral arguments, which are expected to occur in the fall. It is unclear how such litigation and other efforts to repeal and replace the Affordable Care Act will impact the Affordable Care Act and our business.

In addition, other legislative changes have been proposed and adopted since the Affordable Care Act was enacted. For example, the Budget Control Act of 2011, among other things, included reductions to CMS payments to providers of 2% per fiscal year, which went into effect on April 1, 2013 and, due to subsequent legislative amendments to the statute, will remain in effect through 2030 unless additional Congressional action is taken. The Coronavirus Aid, Relief and Economic Security Act, or CARES Act, which was signed into law in March 2020 and is designed to provide financial support and resources to individuals and businesses affected by the COVID-19 pandemic, suspended the 2% Medicare sequester from May 1, 2020 through December 31, 2020, and extended the sequester by one year, through 2030. Additionally, the American Taxpayer Relief Act of 2012, among other things, reduced CMS payments to several providers, including hospitals, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years.

We believe that there will continue to be proposals by legislators at both the federal and state levels, regulators and third-party payors to reduce costs while expanding individual healthcare benefits. Certain of these changes could impose additional limitations on the rates we will be able to charge for our current and future products or the amounts of reimbursement available for our current and future products from governmental agencies or third-party payors. Current and future healthcare reform legislation and policies could have a material adverse effect on our business and financial condition. Further, it is possible that additional governmental action is taken in response to the COVID-19 pandemic. For example, the Trump administration issued an executive order on August 3, 2020 directing CMS to propose a regulation extending Medicare coverage for certain telemedicine services provided to certain Medicare beneficiaries beyond the duration of the COVID-19 pandemic. CMS is required to propose the regulation within sixty (60) days of the issuance of the executive order.

Employees

As of June 30, 2020, we had 202 full-time employees. We believe that the success of our business will depend, in part, on our ability to attract and retain qualified personnel. None of our employees are represented by a labor union or are a party to a collective bargaining agreement and we believe that we have good relations with our employees.

Facilities

We currently lease approximately 25,000 square feet for our corporate headquarters located at 700 Chesapeake Drive, Redwood City, California 94063 under a lease agreement that terminates in 2025. This facility supports production and distribution operations, including manufacturing, quality control, raw material and finished goods storage. We lease approximately 17,000 square feet of space at 250 Chesapeake in Redwood City, California and approximately 8,000 square feet of space at 200 Chesapeake in Redwood City, California under a sublease agreement that terminates in 2024 with a mutual early termination option, applicable to the 200 Chesapeake location only, beginning in 2022. These facilities are used for finished goods storage and general office purposes. We also lease office space in Neuchâtel, Switzerland. We believe that these facilities are sufficient to meet our current and anticipated needs in the near term and that additional space can be obtained on commercially reasonable terms as needed.

Legal Proceedings

From time to time we may become involved in legal proceedings or investigations, which could have an adverse impact on our reputation, business and financial condition and divert the attention of our management from the operation of our business. We are not presently a party to any legal proceedings that, if determined adversely to us, would individually or taken together have a material adverse effect on our business, results of operations, financial condition or cash flows. We may from time to time receive letters from third parties alleging patent infringement, violation of employment practices or trademark infringement, and we may in the future participate in litigation to defend ourselves. We cannot predict the results of any such disputes, and despite the potential outcomes, the existence thereof may have an adverse material impact on us due to diversion of management time and attention as well as the financial costs related to resolving such disputes.

MANAGEMENT

Executive Officers and Directors

The following table sets forth information concerning our executive officers and directors as of June 30, 2020:

Name	Age	Position(s)
Executive Officers		
Glendon E. French	58	President, Chief Executive Officer and Director
Derrick Sung, Ph.D.	47	Chief Financial Officer
Geoffrey Beran Rose	47	Chief Commercial Officer
Non-Employee Directors		
Thomas W. Burns(2)(4)	59	Director
Charles Chon(5)	46	Director
Richard Ferrari(2)(3)	66	Director
Daniel Florin(1)(2)	56	Director
Georgia Garinois-Melenikiotou(1)(3)(4)	60	Director
Staffan Lindstrand(1)	58	Director
Michael Matly, M.D.(5)	39	Director
Dana G. Mead, Jr.(3)	61	Director and Chairperson of the Board
Stephen Salmon(5)	59	Director

(1) Member of the audit committee
(2) Member of the compensation committee
(3) Member of the nominating and corporate governance committee
(4) Mr. Burns and Ms. Garinois-Melenikiotou have been appointed as members of our board of directors effective immediately prior to the effectiveness of the registration statement of which this prospectus is a part.
(5) Mr. Chon, Mr. Salmon and Dr. Matly have resigned from our board of directors, effective immediately prior to the effectiveness of the registration statement of which this prospectus is a part.

Executive Officers

Glendon E. French has served as our President, Chief Executive Officer and as a member of our board of directors since December 2014. From January 2014 to November 2014, Mr. French served as Chief Executive Officer and as a director of ApniCure, a medical device company. From October 2010 to December 2012, Mr. French served as President, Pulmonary Endoscopy for Boston Scientific Corporation, a medical device company. From December 2003 to October 2010, Mr. French served as President and Chief Executive Officer and as a director of Asthmatx, Inc., a medical device company. Mr. French serves as the Executive Chairman of the board of directors of Levita Magnetics International Corp., a medical device company. Mr. French holds a B.A. in History from Dartmouth College and an M.B.A. from the Wharton School at the University of Pennsylvania. We believe that Mr. French is qualified to serve as a member of our board of directors because of his extensive leadership experience and knowledge of the medical device industry.

Derrick Sung, Ph.D. has served as our Chief Financial Officer since May 2019. From May 2015 to May 2019, Dr. Sung served as the Executive Vice President of Strategy and Corporate Development for iRhythm Technologies, Inc., a digital healthcare and medical technology company. From February 2008 to April 2015, Dr. Sung was the senior equity research analyst covering the medical devices sector for Sanford C. Bernstein & Co., LLC, a subsidiary of AllianceBernstein L.P. From 2004 to 2008, he served as Director of Marketing and Business Development in the Neuromodulation division of Boston Scientific Corporation. From 2000 to 2004, Dr. Sung was a management consultant at The Boston Consulting Group, a business consulting firm. Dr. Sung holds a Ph.D. in Bioengineering from U.C. San Diego, an M.B.A. from San Diego State University and a B.S. in Mechanical Engineering from Stanford University.

Geoffrey Beran Rose has served as our Chief Commercial Officer since January 2020. From December 2014 to January 2020, Mr. Rose served as our Vice President, Marketing and Business Development. From August 2013 to December 2014, Mr. Rose served as Global Group Marketing Director for Boston Scientific Corporation. From August 2006 to August 2013, Mr. Rose served as a director of strategy within research and development and clinical organizations of Boston Scientific Corporation. Mr. Rose holds a B.A. from Yale University and an M.B.A. from the MIT Sloan School of Management.

Non-Employee Directors

Thomas W. Burns has served as a member of our board of directors since September 2020. Since March 2002, Mr. Burns has served the President, Chief Executive Officer and a member of the board of directors of Glaukos Corporation, a medical technology and pharmaceutical company. From October 2009 until June 2015, Mr. Burns served as a member and the chairman of the board of directors of DOSE Medical Corporation, a medical technology company. From March 2010 until June 2015, Mr. Burns served as DOSE Medical Corporation's Chief Executive Officer and President. From July 2018 until August 2019, Mr. Burns served on the board of directors of Avedro, Inc., prior to its acquisition by Glaukos. Mr. Burns holds a B.A. from Yale University. We believe that Mr. Burns is qualified to serve as a member of our board of directors because of his extensive leadership and management experience in the medical technology industry and his experience on private and public company boards.

Charles Chon has served on our board of directors since April 2019. Mr. Chon is a Partner and Managing Director of Ally Bridge Group (ABG), a healthcare-focused investment group, where Mr. Chon leads the group's investing efforts in medical technologies. Before joining ABG in 2013, Mr. Chon was in public equity research for more than 13 years on both the sell-side and buy-side covering healthcare and, more specifically, medical technologies. This includes experiences with Janchor Partners Limited, a long-short fund based in Hong Kong, from 2012 to 2013, Stifel Nicolaus & Co., a global investment bank and financial services company, from 2010 to 2012, and Goldman Sachs Group, Inc., another global investment bank and financial services company, from 2004 to 2009. Mr. Chon holds a CFA designation, and an M.B.A. in healthcare management from Boston University and a B.A. in Chemistry from Amherst College. We believe that Mr. Chon is qualified to serve as a member of our board of directors because of his extensive experience in public equities research and working with medical technology companies.

Richard Ferrari has served on our board of directors since March 2007. Mr. Ferrari is the Co-Founder and Managing Director of De Novo Ventures, a healthcare investment firm dedicated to medical devices and bio-technology. Mr. Ferrari also serves as a faculty member of the Stanford Biodesign Emerging Entrepreneurs Forum, as well as a board member for the Stanford Coulter Foundation for Translational Medicine. From October 1995 to May 1999, Mr. Ferrari co-founded and served as the Chief Executive Officer of CardioThoracic Systems, Inc., a surgery medical technology and device company. From January 1990 to June 1995, Mr. Ferrari served as the CEO of Cardiovascular Imaging Systems, a developer of ultrasound imaging. Mr. Ferrari holds a B.S. from Ashland University and an M.B.A. from the University of South Florida. We believe that Mr. Ferrari is qualified to serve as a member of our board of directors because of his technical knowledge, extensive leadership experience at medical technology companies and the historical knowledge and continuity he brings to our board of directors.

Daniel Florin has served as a member our board of directors since January 2020. From July 2019 to March 2020, Mr. Florin served as Executive Vice President of Zimmer Biomet Holdings Inc., a medical device company. From June 2015 to July 2019, Mr. Florin served as Zimmer Biomet's Executive Vice President and Chief Financial Officer. From July 2017 to December 2017, Mr. Florin served as Zimmer Biomet's Interim Chief Executive Officer. From June 2007 to June 2015, Mr. Florin served as Senior Vice President and Chief Financial Officer at Biomet, Inc. (prior to Biomet's merger with Zimmer). From January 2001 to May 2007, Mr. Florin served as Vice President and Corporate Controller of Boston Scientific Corporation. Mr. Florin has served as a board member at AtriCure, Inc. since December 2019. Mr. Florin holds a B.A. with a concentration in Accounting from the University of Notre Dame and an M.B.A. from Boston University. We believe that Mr. Florin is qualified to serve as a member of our board of directors because of his extensive experience in the medical device industry.

Georgia Garinois-Melenikiotou has served as a member of our board of directors since September 2020. Ms. Garinois-Melenikiotou currently serves on the boards of directors of Inspire Medical Systems, a medical device company, and Almirall, S.A., a BME-listed pharmaceutical company. Ms. Garinois-Melenikiotou also serves on the board of directors of the Sloan School of Management at M.I.T. From January 2015 to July 2020, Ms. Garinois-Melenikiotou served as Executive Vice President, Corporate Marketing at The Estée Lauder Companies, a global beauty products company. From April 2010 through December 2014, Ms. Garinois-Melenikiotou served as The Estée Lauder Companies' Senior Vice President, Corporate Marketing. From January 2007 to March 2010, Ms. Garinois-Melenikiotou served as President, Beauty Global Business Unit Strategy and New Growth at Johnson & Johnson, a global manufacturer of medical devices, pharmaceutical products and consumer packaged goods. From 2005 to 2007, Ms. Garinois-Melenikiotou served as Global Group President, RoC, Evian, Johnson's brands and Skincare & Suncare categories. Prior to 2005, Garinois-Melenikiotou served in various other senior leadership roles during her 27 year career with Johnson & Johnson including Global President, RoC, Evian, Piz-Buin brands and Suncare category, and Vice President, Neutrogena, Johnson's, Aveeno, Clean & Clear, RoC, Beauty GBU EMEA. Ms. Garinois-Melenikiotou holds a B.S. and an M.S. in Engineering from the National Technical University of Athens and an M.B.A. from the Sloan School of Management at M.I.T. We believe that Ms. Garinois-Melenikiotou is qualified to serve as a member of our board because of her experience on public company boards and expertise in global consumer marketing.

Staffan Lindstrand has served on our board of directors since February 2010. Mr. Lindstrand is a Partner of HealthCap, a venture capital firm investing in life science companies. Mr. Lindstrand currently serves on the boards of directors of Orexo AB, a Nasdaq Stockholm-listed specialty pharmaceutical company, Doctrin AB, a healthcare technology platform, and Pactumize, a legal technology company, as well as other private company boards. Mr. Lindstrand also previously served on the board of Aerocrine AB, a previously Nasdaq Stockholm-listed medical device company. From December 1986 to September 1997, Mr. Lindstrand served as a Vice President at ABB Aros Securities AB in Sweden, a brokerage and financial advisory firm. Mr. Lindstrand holds an M.Sc. in Engineering from the KTH Royal Institute of Technology of Stockholm. We believe that Mr. Lindstrand is qualified to serve as a member of our board of directors because of his experience with medical device and life science companies, his service on public and private company boards and the historical knowledge and continuity he brings to our board of directors.

Michael Matly, M.D. has served on our board of directors since March 2016. Dr. Matly is a Managing Director at Montreux Growth Partners, a private investment firm focused on health services and technology companies. From September 2009 to June 2012, Dr. Matly led Business Development and New Ventures at the Mayo Clinic Center for Innovation, a center within The Mayo Clinic, a nonprofit academic medical center. Dr. Matly holds an M.D. from the Mayo Clinic, an M.B.A. from Harvard Business School, and a B.S. from Cornell University. We believe that Dr. Matly is qualified to serve as a member of our board of directors because of his extensive medical knowledge, his experience in the medical technology field and his experience serving on the board of public and private companies.

Dana G. Mead, Jr. has served as a member of our board of directors since February 2010 and has served as our Chairman since October 2019. Since May 2019, Mr. Mead has served as the Chief Executive Officer, President and director of HeartFlow, Inc., a medical technology company. From November 2016 to May 2019, Mr. Mead served as President and Chief Executive Officer of Beaver-Visitec International, Inc., a surgical device developer and manufacturer. From June 2005 to November 2016, Mr. Mead served as a partner at Kleiner Perkins Caufield & Byers, a venture capital investment firm. In addition to serving on our board of directors and the board of HeartFlow, Inc., Mr. Mead has served on the board of directors of Inspire Medical Systems since July 2008 and the board of directors of Intersect ENT, Inc. since January 2006, where he serves on its audit and compensation committees. Mr. Mead holds a B.A. from Lafayette College and an M.B.A. from the University of Southern California. We believe that Mr. Mead is qualified to serve as a member of our board of directors because of his service on other medical technology company boards, his broad experience in the healthcare industry and the historical knowledge and continuity he brings to our board of directors.

Stephen Salmon has served as a member our board of directors since June 2007. Since June 2005, Mr. Salmon has served as a partner at LVP Life Science Ventures III, L.P., a private investment fund focused on healthcare companies. Mr. Salmon previously served as the Vice President, Research & Development, at Boston Scientific Corporation and held executive positions within several medical device companies. Mr. Salmon has authored or co-authored 34 U.S. patents. Mr. Salmon holds a B.S. in Chemical Engineering from the University of Maine. We believe Mr. Salmon is qualified to serve as a member of our board of directors because of his extensive experience working for and advising medical device research and development companies and the historical knowledge and continuity he brings to our board of directors.

Family Relationships

There are no family relationships among any of our executive officers or directors.

Board Composition and Election of Directors

Our board of directors currently consists of eight members. Each director is currently elected to the board of directors for a one-year term, to serve until the election and qualification of a successor director at our annual meeting of stockholders, or until the director's earlier removal, resignation or death.

Certain of our directors currently serve on the board of directors pursuant to the voting provisions of a voting agreement between us and several of our stockholders. Under the terms of this voting agreement, the stockholders who are party to the voting agreement have agreed to vote their respective shares so as to elect: (1) one director to be designated by Montreux Equity Partners, who is currently Dr. Matly; (2) one director to be designated by De Novo Ventures, who is currently Mr. Ferrari; (3) one director to be designated by Latterell Venture Partners, who is currently Mr. Salmon; (4) one director to be designated by HealthCap V L.P., who is currently Mr. Lindstrand; (5) one director designated by KPCB Holdings, Inc., who is currently Mr. Mead; (6) one director designated by ABG-Pulmonx Limited, who is currently Mr. Chon; (7) one director to be our current Chief Executive Officer, who is currently Mr. French; (8) one director elected by the holders of our common stock, which seat is currently vacant; and (9) two directors who are industry experts designated by the other directors, who is currently Mr. Florin and one vacancy. This agreement will terminate upon the closing of this offering, after which there will be no further contractual obligations regarding the election of our directors.

Classified Board of Directors

In accordance with our amended and restated certificate of incorporation, which will become effective in connection with the closing of this offering, our board of directors will be divided into three classes with staggered three-year terms. At each annual meeting of stockholders, the successors to directors whose terms then expire will be elected to serve from the time of election and qualification until the third annual meeting following election. Our directors will be divided among the three classes as follows:

- Class I, which will consist of Mr. French and Mr. Lindstrand, whose term will expire at our first annual meeting of stockholders to be held after the closing of this offering;
- Class II, which will consist of Mr. Ferrari and Mr. Florin, whose term will expire at our second annual meeting of stockholders to be held after the closing of this offering; and
- Class III, which will consist of Mr. Mead, Ms. Garinois-Melenikiotou and Mr. Burns, whose term will expire at our third annual meeting of stockholders to be held after the closing of this offering.

Our amended and restated bylaws, which will become effective in connection with the closing of this offering, will provide that the authorized number of directors may be changed only by resolution approved by a majority of our board of directors. Any additional directorships resulting from an increase in the number of directors will be distributed among the three classes so that, as nearly as possible, each class will consist of one-third of the directors.

The division of our board of directors into three classes with staggered three-year terms may delay or prevent a change of our management or a change in control. See the section entitled "Description of Capital Stock—Anti-Takeover Provisions—Anti-Takeover Effects of Certain Provisions of our Certificate of Incorporation and Bylaws to be in Effect Upon the Closing of this Offering."

Director Independence

Our board of directors has undertaken a review of the independence of the directors and considered whether any director has a material relationship with us that could compromise his or her ability to exercise independent judgment in carrying out his or her responsibilities. Based upon information requested from and provided by each director concerning such director's background, employment and affiliations, including family relationships, our board of directors determined that Mr. Burns, Mr. Ferrari, Mr. Florin, Ms. Garinois-Melenikiotou, Mr. Lindstrand and Mr. Mead, Jr., representing six of our seven directors following the closing of this offering, are "independent directors" as defined under the listing standards of the Nasdaq Global Select Market. In making these determinations, our board of directors considered the current and prior relationships that each non-employee director has with our company and all other facts and circumstances that our board of directors deemed relevant in determining their independence, including the beneficial ownership of our capital stock by each non-employee director and the transactions involving them described in "Certain Relationships and Related Party Transactions."

Board Committees

Our board of directors has established an audit committee, a compensation committee and a nominating and corporate governance committee, each of which has the composition and responsibilities described below. Each of the audit committee, the compensation committee and the nominating and corporate governance committee will operate under a written charter that will be approved by our board of directors in connection with this offering. From time to time, our board of directors may establish other committees to facilitate the management of our business.

Audit Committee

Our audit committee consists of three directors, Mr. Florin, Ms. Garinois-Melenikiotou and Mr. Lindstrand. Our board of directors has determined that each of our audit committee members satisfies the independence requirements for audit committee members under the listing standards of the Nasdaq Global Select Market and Rule 10A-3 of the Exchange Act. Each member of our audit committee meets the financial literacy requirements of the listing standards of the Nasdaq Global Select Market. Mr. Florin is the chairperson of the audit committee and our board of directors has determined that Mr. Florin is an audit committee "financial expert" as defined by Item 407(d) of Regulation S-K under the Securities Act of 1933, as amended (Securities Act). The principal duties and responsibilities of our audit committee include, among other things:

- selecting a qualified firm to serve as the independent registered public accounting firm to audit our financial statements;
- helping to ensure the independence and performance of the independent registered public accounting firm;
- discussing the scope and results of the audit with the independent registered public accounting firm, and reviewing, with management and the independent accountants, our interim and year-end operating results;
- developing procedures for employees to submit concerns anonymously about questionable accounting or audit matters;
- reviewing our policies on risk assessment and risk management;
- reviewing related party transactions;
- obtaining and reviewing a report by the independent registered public accounting firm at least annually, that describes its internal quality-control procedures, any material issues with such procedures, and any steps taken to deal with such issues when required by applicable law; and
- approving (or, as permitted, pre-approving) all audit and all permissible non-audit services, other than de minimis non-audit services, to be performed by the independent registered public accounting firm.

Our audit committee operates under a written charter that satisfies the applicable rules of the SEC and the listing standards of the Nasdaq Global Select Market.

Compensation Committee

Our compensation committee consists of three directors, Mr. Burns, Mr. Ferrari and Mr. Florin, each of whom our board of directors has determined is a non-employee member of our board of directors as defined in Rule 16b-3 under the Exchange Act. Mr. Ferrari is the chairperson of the compensation committee. The composition of our compensation committee meets the requirements for independence under current listing standards of the Nasdaq Global Select Market and current SEC rules and regulations. The principal duties and responsibilities of our compensation committee include, among other things:

- reviewing and approving, or recommending that our board of directors approve, the compensation of our executive officers, including evaluating the performance of our chief executive officer and, with his assistance, that of our other executive officers;
- reviewing and recommending to our board of directors the compensation of our directors;
- reviewing and approving, or recommending that our board of directors approve, the terms of compensatory arrangements with our executive officers;
- administering our equity and non-equity incentive plans;
- reviewing and approving, or recommending that our board of directors approve, incentive compensation and equity plans; and
- reviewing and establishing general policies relating to compensation and benefits of our employees and reviewing our overall compensation philosophy.

Our compensation committee operates under a written charter that satisfies the applicable rules of the SEC and the listing standards of the Nasdaq Global Select Market.

Nominating and Corporate Governance Committee

Our nominating and corporate governance committee consists of three directors, Mr. Ferrari, Ms. Garinois-Melenikiotou and Mr. Mead. Mr. Mead is the chairperson of the nominating and corporate governance committee. The composition of our nominating and corporate governance committee meets the requirements for independence under current listing standards of the Nasdaq Global Select Market and current SEC rules and regulations. The nominating and corporate governance committee’s responsibilities include, among other things:

- identifying, evaluating and selecting, or recommending that our board of directors approve, nominees for election to our board of directors and its committees;
- evaluating the performance of our board of directors and of individual directors;
- considering and making recommendations to our board of directors regarding the composition of our board of directors and its committees;
- reviewing developments in corporate governance practices;
- evaluating the adequacy of our corporate governance practices and reporting;
- developing and making recommendations to our board of directors regarding corporate governance guidelines and matters; and

- overseeing an annual evaluation of the board's performance.

Our nominating and corporate governance committee operates under a written charter that satisfies the applicable rules of the SEC and the listing standards of the Nasdaq Global Select Market.

Code of Business Conduct and Ethics

In connection with this offering, we intend to adopt a Code of Business Conduct and Ethics (Code of Conduct) applicable to all of our employees, executive officers, and directors. Following the closing of this offering, the Code of Conduct will be available on our website. The nominating and corporate governance committee of our board of directors will be responsible for overseeing the Code of Conduct and must approve any waivers of the Code of Conduct for executive officers and directors. We expect that any amendments to the Code of Conduct, or any waivers of its requirements with respect to our executive officers and directors, will be disclosed on our website.

Compensation Committee Interlocks and Insider Participation

None of our executive officers currently serves, or in the past year has served, as a member of the board of directors or compensation committee of any entity that has one or more executive officers serving on our board of directors or compensation committee. None of the members of our compensation committee is an officer or employee of our company, nor have they ever been an officer or employee of our company.

Non-Employee Director Compensation

The following table sets forth information regarding the compensation earned for service on our board of directors during the year ended December 31, 2019 by our non-employee directors. Glendon E. French, our Chief Executive Officer, is also a member of our board of directors, but did not receive any additional compensation for service as a director. Mr. French's compensation as an executive officer is set forth below under "Executive Compensation—2019 Summary Compensation Table."

Name[(1)]	Fees Earned or Paid in Cash ($)	Option Awards ($)[(2)]	All Other Compensation ($)	Total ($)
Thomas W. Burns	$ —	$ —	$ —	$ —
Charles Chon	—	—	—	—
Richard Ferrari	—	—	—	—
Daniel Florin	—	13,548	12,500[(3)]	26,048
Georgia Garinois-Melenikiotou	—	—	—	—
Staffan Lindstrand	—	—	—	—
Dana G. Mead, Jr.	15,000	13,548	—	28,548
Michael Matly, M.D.	—	—	—	—
Rodney Perkins, M.D.[(4)]	—	14,994	—	14,994
Stephen Salmon	—	—	—	—
Oern Stuge, M.D.[(5)]	—	2,269	72,075[(6)]	74,344

(1) All amounts presented in the Non-Employee Director Compensation table are expressed in U.S. dollars, except as listed in footnote 4 below.
(2) Amounts shown in this column do not reflect dollar amounts actually received by our non-employee directors. Instead, these amounts reflect the aggregate grant date fair value of each stock option granted in 2018, computed in accordance with the provisions of FASB ASC Topic 718. Methodology used in the calculation of these amounts are included in Note 11 to our consolidated financial statements included in this prospectus. As required by SEC rules, the amounts shown exclude the impact of estimated forfeitures related to service-based vesting conditions. Our non-employee directors will only realize compensation to the extent the trading price of our common stock is greater than the exercise price of such stock options.
(3) Consists of $12,500 paid to Mr. Florin under the terms of a consulting agreement, which was terminated on his election to our board.
(4) Dr. Perkins resigned as a member of our board of directors in July 2020.
(5) Dr. Stuge resigned as a member of our board of directors in July 2020.

(6) Consists of: (i) $12,056 paid to Dr. Stuge for his services as Executive Chairman of PulmonX International Sàrl and (ii) $60,020 paid to Orsco Life Sciences AG, a consulting entity owned by Dr. Stuge, for consulting services rendered to PulmonX International Sârl. All amounts payable to Dr. Stuge in 2019 were paid in Swiss francs. The exchange rate used for the purpose of the Non-Employee Director Compensation Table was as follows: (i) for payments in January 2019, 0.9905 Swiss francs to 1 U.S. dollar, (ii) for payments in February 2019, 0.9934 Swiss francs to 1 U.S. dollar, (iii) for payments in March 2019, 1.0003 Swiss francs to 1 U.S. dollar, (iv) for payments in April 2019, 0.9955 Swiss francs to 1 U.S. dollar, (v) for payments in May, 1.0202 Swiss francs to 1 U.S. dollar, (vi) for payments in June, 1.0068 Swiss francs to 1 U.S. dollar, (vii) for payments in July 2019, 0.9781 Swiss francs to 1 U.S. dollar, (viii) for payments in August 2019, 0.9909 Swiss francs to 1 U.S. dollar, (ix) for payments in September 2019, 0.9837 Swiss francs to 1 U.S. dollar, (x) for October, 0.9928 Swiss francs to 1 U.S. dollar, (xi) for payments in November 2019, 0.9947 Swiss francs to 1 U.S. dollar and (xii) for payments in December 2019, 0.9990 Swiss francs to 1 U.S. dollar,based on the average exchange rates published by the Federal Reserve Bank in 2019.

We currently reimburse our directors for their reasonable out-of-pocket expenses in connection with attending board of directors and committee meetings. From time to time, we have granted stock options to certain of our non-employee directors as compensation for their services.

In July 2014, we granted Dr. Stuge an option to purchase 36,000 shares of common stock with an exercise price of $2.90 per share, vesting monthly over 21 months and another option to purchase 14,749 shares of common stock with an exercise price of $2.90 per share, vesting monthly over 19 months. In October 2014, we granted Dr. Stuge an option to purchase 10,000 shares of common stock with an exercise price of $2.90 per share, vesting monthly over four years. In June 2019, we granted Dr. Stuge an option to purchase 3,000 shares of common stock with an exercise price of $1.40 per share, vesting monthly over one year. In July 2020, we granted Dr. Stuge a fully vested option to purchase 3,500 shares of common stock with an exercise price of $1.40 per share. Dr. Stuge resigned as a member of our board of directors in July 2020.

In September 2012, we granted Dr. Perkins an option to purchase 14,000 shares of common stock with an exercise price of $2.00 per share, vesting monthly over four years. In February 2017, we granted Dr. Perkins an option to purchase 10,000 shares of common stock with an exercise price of $1.30 per share, vesting monthly over one year. In November 2017, we granted Dr. Perkins an option to purchase 52,500 shares of common stock with an exercise price of $1.30 per share, all of which were fully vested as of the date of grant. In June 2019, we granted Dr. Perkins an option to purchase 20,000 shares of common stock with an exercise price of $1.40 per share, of which 10,000 were fully vested as of the date of grant and 10,000 vest monthly over one year. In July 2020, we granted Dr. Perkins a fully vested option to purchase 3,500 shares of common stock with an exercise price of $1.40 per share. Dr. Perkins resigned as a member of our board of directors in July 2020.

In October 2019, we granted Mr. Florin an option to purchase 6,000 shares of common stock with an exercise price of $2.10 per share, vesting monthly over one year, which vesting will terminate upon the closing of this offering.

In October 2019, we granted Mr. Mead an option to purchase 6,000 shares of common stock with an exercise price of $2.10 per share, vesting monthly over one year, which vesting will terminate upon the closing of this offering.

In August 2020, we granted Mr. Ferrari an option to purchase 6,000 shares of common stock with an exercise price of $2.20 per share, vesting monthly over one year, which vesting will terminate upon the closing of this offering.

In September 2020, our board of directors approved an option to purchase 25,000 shares of common stock to each of Mr. Burns, Mr. Ferrari, Mr. Florin, Ms. Garinois-Melenikiotou, Mr. Lindstrand and Mr. Mead effective immediately following the execution of the underwriting agreement related to this offering. Each option will have an exercise price per share equal to the per share price to the public set forth on the cover to this prospectus. Each option vests and becomes exerciseable in 36 substantially equal monthly installments from the date of grant, subject to continuous service through the applicable vesting date. Such options are otherwise subject to the terms of the 2020 Equity Incentive Plan, as amended from time to time, and the Company's standard form of option agreement.

Commencing in October 2019 and until the closing of this offering, we pay Mr. Mead $5,000 per month for service as Chairman of our board of directors.

Commencing on his election to our Board in January 2020 and until the closing of this offering, we pay Mr. Florin $5,000 per month for service as a member of our board of directors.

Non-Employee Director Compensation Policy

Prior to this offering, we did not have a formal policy with respect to compensation payable to our non-employee directors for service as directors. In September 2020, we adopted a non-employee director compensation policy (Compensation Policy) to be effective in connection with this offering, pursuant to which our non-employee directors will be eligible to receive the following compensation for service on our board of directors and committees of our board of directors:

Equity Compensation

Equity awards will be granted under the 2020 Equity Incentive Plan, as amended from time to time, or any successor equity incentive plan. All stock options granted under the Compensation Policy will be nonstatutory stock options, with a term of ten years from the date of grant (subject to earlier termination upon a termination of the non-employee director's continuous service) and an exercise price per share equal to 100% of the fair market value of a share of our common stock on the date of grant.

Initial Equity Grant

Each non-employee director who is elected or appointed to our board of directors for the first time on or after the effective date of the Compensation Policy will be granted an option to purchase a number of shares of our common stock with an aggregate value of $180,000 (based on the Black-Scholes pricing method) on the date of his or her initial election or appointment to our board of directors and a per-share exercise price based on the closing price of our common stock on the Nasdaq Global Select Market on the date of grant (the Initial Equity Grant). One-thirty-sixth of the shares subject to the Initial Equity Grant will vest on the one-month anniversary of the date of grant and each month thereafter on the same day of the month as the grant date (and if there is no corresponding day, on the last day of the month), subject to the non-employee director's continuous service through each vesting date.

Annual Equity Grant

On the date of each annual meeting following the applicable non-employee director's Initial Equity Grant, each person who continues to serve as a non-employee director following such annual meeting, and who has been in continuous service as a non-employee director for at least six months as of such date, will be granted an option to purchase a number of shares of our common stock with an aggregate value of $120,000 (based on the Black-Scholes pricing method) on the date of such meeting and a per-share exercise price based on the closing price of our common stock on the Nasdaq Global Select Market on the date of grant (the Annual Equity Grant). One-twelfth of the shares subject to each Annual Equity Grant will vest on the one-month anniversary of the date of grant and each month thereafter on the same day of the month as the grant date (and if there is no corresponding day, on the last day of the month), subject to the non-employee director's continuous service through each vesting date.

Change in Control

Notwithstanding the above, for each non-employee director who remains in continuous service until immediately prior to the closing of a change in control, any unvested shares subject to his or her then-outstanding equity awards will become fully vested and exercisable immediately prior to the closing of such change in control.

Cash Compensation

Each non-employee director will receive an annual service retainer of $40,000 in cash for serving on our board of directors. A non-employee director who serves as a non-executive chairperson of our board of directors will receive an additional annual cash service retainer of $35,000 for serving in that role.

The chairperson and other members of the three standing committees of our board of directors will be entitled to the following additional annual cash retainers:

Board Committee	Chairperson		Other Member	
Audit Committee	$	20,000	$	10,000
Compensation Committee	$	15,000	$	7,500
Nominating and Corporate Governance Committee	$	10,000	$	5,000

All annual cash retainers will be payable in equal quarterly installments, in arrears, no later than 30 days following the end of each quarter in which the service on our board of directors occurs, prorated for any partial quarter of service (based on the number of days served in the applicable position divided by the total number of days in the quarter). All annual cash retainers will be vested upon payment.

Expenses

We will also reimburse each non-employee director for all ordinary, necessary and reasonable out-of-pocket travel expenses incurred by the non-employee director in attending in person and participating in meetings of our board of directors or any committee thereof and any meetings of our stockholders, provided the non-employee director timely submits appropriate documentation substantiating such expenses in accordance with our travel and expense policy, as in effect from time to time.

EXECUTIVE COMPENSATION

Our named executive officers, consisting of our principal executive officer and our two other most highly compensated officers for our fiscal year ended December 31, 2019, were:

- Glendon E. French, Chief Executive Officer and Director;
- Derrick Sung, Ph.D., Chief Financial Officer; and
- Geoffrey Beran Rose, Chief Commercial Officer.

Summary Compensation Table

The following table sets forth all of the compensation awarded to, or earned by or paid to our named executive officers during 2019.

Name and Principal Position	Salary	Bonus	Option Awards[1]	Non-Equity Incentive Plan Compensation[2]	All Other Compensation[3]	Total
Glendon E. French	$ 412,000		$ 546,326	$ 163,519	$ 642	$ 1,122,487
Chief Executive Officer						
Derrick Sung, Ph.D.	196,591		186,600	45,363	348	428,902
Chief Financial Officer						
Geoffrey Beran Rose	272,600		137,163	62,902	642	473,307
Chief Commercial Officer						

(1) These columns reflect the aggregate grant date fair value of options without regard to forfeitures granted during the year measured pursuant to Financial Accounting Standards Board Accounting Standards Codification Topic 718 (ASC 718). Assumptions used in the calculation of these amounts are included in Note 11 to our Consolidated Financial Statements included in this prospectus. Our named executive officers will only realize compensation to the extent the trading price of our common stock is greater than the exercise price of such stock options.

(2) Represents payments upon the achievement of 2019 corporate goals as well as individual objectives, which were paid in February and April 2020. Our corporate goals included revenue growth, reimbursement progress and clinical and regulatory milestones.

(3) Amounts reported represent life insurance premiums paid by us on behalf of the named executive officer.

Outstanding Equity Awards as of December 31, 2019

The following table presents information regarding outstanding equity awards held by our named executive officers as of December 31, 2019. All awards were granted under our 2010 Stock Plan. See "—Employment, Severance, and Change in Control Agreements" for a description of vesting acceleration applicable to stock options held by our named executive officers.

	Option Awards					
Name	Grant Date	Vesting Commencement Date	Number of Securities Underlying Exercisable Options	Number of Securities Underlying Unexercisable Options	Option Exercise Price	Option Expiration Date
Glendon E. French	2/15/2015	12/10/2014	709,454(1)(2)	—	$1.40	2/14/2025
	2/15/2015	12/10/2014	64,496(2)(3)	—	1.40	2/14/2025
	12/2/2015	12/10/2014	93,865(1)(2)	—	1.50	12/1/2025
	12/2/2015	12/10/2014	11,130(2)(3)	—	1.50	12/1/2025
	6/1/2016	6/1/2016	83,304(2)(4)	—	1.50	5/31/2026
	6/1/2016	6/1/2016	7,573(2)(3)	—	1.50	5/31/2026
	2/6/2017	2/6/2017	41,304(2)(4)	—	1.30	2/5/2027
	2/6/2017	2/6/2017	3,755(2)(3)	—	1.30	2/5/2027
	10/21/2019	10/2/2019	235,000(2)(4)	—	2.10	10/20/2029
Derrick Sung, Ph.D.	6/27/2019	(5)	76,219(2)(5)	—	1.40	6/26/2029
Geoffrey Beran Rose	2/15/2015	12/16/2014	71,428(1)(2)	—	1.40	2/14/2025
	12/2/2015	12/16/2014	22,261(1)(2)	—	1.50	12/1/2025
	6/1/2016	12/16/2014	15,146(1)(2)	—	1.50	5/31/2026
	2/6/2017	12/16/2014	7,509(1)(2)	—	1.30	2/5/2027
	10/21/2019	10/2/2019	59,000(2)(6)	—	2.10	10/20/2029

(1) 1/4th of the total shares subject to this option will vest one year after the vesting commencement date and the balance of the shares subject to this option will vest in a series of thirty-six successive equal monthly installments from the first anniversary of the vesting commencement date, subject to continuous service through each such date. As of December 31, 2019, all of the shares are vested.

(2) This option is early exercisable and to the extent any of such shares are unvested as of a given date, any purchased shares will remain subject to a right of repurchase by the Company upon the termination of the service of the named executive officer.

(3) 100% of the total shares subject to this option shall accelerate and become fully vested upon action of the Board or a Change of Control (as defined in that certain Executive Employment Agreement by and between the Company and Mr. French, dated December 10, 2014) that represents an enterprise value for the Company that is at least $500 million. As of December 31, 2019, no shares are vested. In February 2020, the Board accelerated the vesting of this option in full.

(4) 1/48th of the total shares subject to this option will vest monthly measured from the vesting commencement date, subject to continuous service through each such date. As of December 31, 2019, 72,891, 29,257 and 9,791 shares are vested, respectively. Effective on the date of the underwriting agreement related to this offering, this option will be subject to acceleration upon certain events as described in the section titled "—Change in Control Agreements."

(5) This option shall commence vesting on the earlier of (i) May 6, 2020 or (ii) the closing of the Company's initial public offering and will vest monthly over three years (1/36th per month). If however on May 6, 2020 the Company has not closed its initial public offering and the Company is in bona fide discussions regarding the sale of the Company (such determination of bona fide discussions to be made by the Board of Directors in good faith), then this option shall terminate and not vest in any part assuming those discussions result in the sale of the Company. However, if the bona fide discussions regarding the sale of the Company come to a clear end (such determination to be made by the Board of Directors in good faith) or extend more than 180 days beyond May 6, 2020 without the sale of the Company then the Option will commence vesting back on May 6, 2020 and will vest monthly over three years (1/36 per month). As of December 31, 2019, no shares are vested. Effective on the date of the underwriting agreement related to this offering, this option will be subject to acceleration upon certain events as described in the section titled "—Change in Control Agreements."

(6) 1/48th of the total shares subject to this option will vest monthly measured from the vesting commencement date, subject to continuous service through each such date. As of December 31, 2019, 2,458 shares are vested. Effective on the date of the underwriting agreement related to this offering, this option will be subject to acceleration upon certain events as described in the section titled "—Change in Control Agreements."

Emerging Growth Company Status

We are an "emerging growth company," as defined in the Jumpstart Our Business Startups Act of 2012 (JOBS Act). As an emerging growth company we will be exempt from certain requirements related to executive compensation, including, but not limited to, the requirements to hold a nonbinding advisory vote on executive compensation and to provide information relating to the ratio of total compensation of our Chief Executive Officer to the median of the annual total compensation of all of our employees, each as required by the Investor Protection and Securities Reform Act of 2010, which is part of the Dodd-Frank Wall Street Reform and Consumer Protection Act.

Employment, Severance, and Change in Control Agreements

Employment Agreement with Mr. French

We entered into an employment agreement with Mr. French in December 2014. The agreement provides for an initial base salary of $375,000 and target annual bonus of 40% of base salary. More current information regarding Mr. French's compensation is set forth in the Summary Compensation Table above. Mr. French's annual base salary as of December 31, 2019 was $412,000 and in June 2020 Mr. French's annual base salary was increased to $424,500, effective as of January 1, 2020. Effective immediately upon the closing of this offering, Mr. French's annual base salary will be increased to $500,000 and his target annual bonus will be increased to 75% of base salary. The agreement also provides for certain option awards, each of which has previously been granted and is described in more detail above in the chart entitled "Outstanding Equity Awards as of December 31, 2019." If Mr. French's employment is terminated without cause (as defined in the agreement) or he resigns due to a significant reduction in duties, position or responsibilities, a 10% reduction in salary or a forced relocation more than 30 miles, then, subject to executing a release of claims and complying with 12-month non-solicit and non-compete covenants, Mr. French will receive 12 months of salary continuation and COBRA premium reimbursements. If the termination occurs within one month prior to or 12 months following a change of control (as defined in the agreement), any stock options then held by him will become fully vested and exercisable. Effective on the date of the underwriting agreement related to this offering, the terms of Mr. French's agreement pertaining to termination without cause (as defined in his employment agreement), resignation due to a significant reduction in duties, position or responsibilities, a reduction in salary or a forced relocation will be superseded by our Severance and Change in Control Plan. See the section titled "Severance and Change in Control Plan" below.

Offer Letter with Dr. Sung

We entered into an offer letter with Dr. Sung in March 2019. The letter provides for an initial base salary of $300,000 and target bonus of 25% of base salary. In January 2020 Dr. Sung's annual base salary was increased to $305,900 effective as of January 1, 2020. Effective immediately upon the closing of this offering, Dr. Sung's annual base salary will be increased to $330,000 and his target annual bonus will be increased to 45% of base salary. The letter also provides for certain option awards, each of which has previously been granted and is described in more detail above in the chart entitled "Outstanding Equity Awards as of December 31, 2019." Dr. Sung may also be entitled to severance and change in control benefits under our Severance and Change in Control Plan. See the section titled "Severance and Change in Control Plan" below.

Offer Letter with Mr. Rose

We entered into an offer letter with Mr. Rose in December 2014. The letter provides for an initial base salary of $240,000 and target bonus of 25% of base salary. Mr. Rose's annual base salary as of December 31, 2019 was $272,600 and in January 2020 Mr. Rose's annual base salary was increased to $280,800, effective as of January 1, 2020. In June 2020 Mr. Rose's annual base salary was increased to $310,000, effective as of February 4, 2020. Effective immediately upon the closing of this offering, Mr. Rose's annual base salary will be increased to $340,000 and his target annual bonus will be increased to 45% of base salary. The letter also provides for certain option awards, each of which has previously been granted and is described in more detail above in the chart entitled "Outstanding Equity Awards as of December 31, 2019." Mr. Rose may also be entitled to severance and change in control benefits under our Severance and Change in Control Plan. See the section titled "Severance and Change in Control Plan" below.

Severance and Change in Control Plan

In September 2020, we adopted a Severance and Change in Control Plan (CIC Plan) that provides severance and change in control benefits to each of our executive officers, including our named executive officers, and certain other participants, under the conditions described below.

Pursuant to the terms of the CIC Plan, upon a termination other than for "cause," death, or "disability," or upon a resignation for "good reason" (each as defined in the CIC Plan, and collectively, a qualifying termination), in each case that occurs during the period beginning commencing on a "change in control" (as defined in the CIC Plan) and ending 12 months following such change in control, the participant will be entitled to receive (i) a cash payment equal to 18 months of base salary, in the case of the CEO, or 12 months of base salary, in the case of other executive officers; (ii) a cash payment equal to the participant's target annual bonus; (iii) reimbursement of COBRA premiums for the duration of the severance period; and (iv) acceleration of vesting (and, if applicable, exercisability) of 100% of then-unvested time-based equity awards held by such employee. Upon a qualifying termination that does not occur in connection with a change of control, the participant will be entitled to receive (i) cash payments equal to 12 months of base salary, in the case of the CEO, and nine months of base salary, in the case of other executive officers; and (ii) reimbursement of COBRA premiums for the duration of the severance period. All benefits under the CIC Plan are subject to the participant signing a general release of claims.

Annual Bonus Plan

Our named executive officers participate in our Annual Bonus Plan for Non-Sales Employees, pursuant to which a bonus payment may be earned based on the extent to which annual performance goals set by the Compensation Committee or the Board of Directors are met. Bonuses are paid during the first quarter of the year following the performance year. Annual bonus amounts paid with respect to 2019 are set forth in the "Non-Equity Incentive Plan Compensation" column of the Summary Compensation Table.

Employee Benefit Plans

Our named executive officers participate in our health and welfare plans on the same basis as other employees.

Our named executive officers are also eligible to participate in our 401(k) plan on the same basis as other employees. Eligible employees are able to defer compensation pursuant to the terms of the 401(k) plan up to certain limits imposed by the Code. We have the ability to make matching and discretionary contributions to the 401(k) plan but have not done so to date. Employees are immediately and fully vested in their own contributions. The 401(k) plan is intended to be qualified under Section 401(a) of the Code, with the related trust intended to be tax exempt under Section 501(a) of the Code.

Pension Benefits

Our named executive officers did not participate in, or otherwise receive any benefits under, any pension or retirement plan sponsored by us during 2019.

Nonqualified Deferred Compensation

Our named executive officers did not participate in, or earn any benefits under, a non-qualified deferred compensation plan sponsored by us during 2019.

Equity Incentive Plans

2020 Equity Incentive Plan

Our 2020 Equity Incentive Plan (2020 Plan) was adopted by our board of directors and approved by our stockholders in September 2020. Our 2020 Plan will become effective on the date of the underwriting agreement related to this offering. Our 2020 Plan will come into existence upon its adoption by our board of directors, but no grants will be made under our 2020 Plan prior to its effectiveness. Once our 2020 Plan becomes effective, no further grants will be made under our 2010 Plan or our 2020 Stock Plan (Prior Plans).

Awards. Our 2020 Plan will provide for the grant of incentive stock options (ISOs) within the meaning of Section 422 of the Internal Revenue Code of 1986, as amended (Code), to our employees and our parent and subsidiary corporations' employees, and for the grant of nonstatutory stock options (NSOs), stock appreciation rights, restricted stock awards, restricted stock unit awards, performance awards and other forms of awards to our employees, directors and consultants and any of our affiliates' employees and consultants.

Authorized Shares. Initially, the maximum number of shares of our common stock that may be issued under our 2020 Plan after it becomes effective will not exceed 3,600,000 shares of our common stock. In addition, the number of shares of our common stock reserved for issuance under our 2020 Plan will automatically increase on January 1 of each year for a period of ten years, beginning on January 1, 2021 and continuing through January 1, 2030, in an amount equal to (i) 4% of the total number of shares of our common stock outstanding on December 31 of the immediately preceding year or (ii) a lesser number of shares determined by our board of directors prior to January 1 of a given year. The maximum number of shares of our common stock that may be issued on the exercise of ISOs under our 2020 Plan will be 10,000,000 shares.

Shares subject to stock awards granted under our 2020 Plan that expire or terminate without being exercised in full or that are paid out in cash rather than in shares will not reduce the number of shares available for issuance under our 2020 Plan. Shares withheld under a stock award to satisfy the exercise, strike or purchase price of a stock award or to satisfy a tax withholding obligation will not reduce the number of shares available for issuance under our 2020 Plan. If any shares of our common stock issued pursuant to a stock award are forfeited back to or repurchased or reacquired by us (1) because of a failure to meet a contingency or condition required for the vesting of such shares, (2) to satisfy the exercise, strike or purchase price of a stock award or (3) to satisfy a tax withholding obligation in connection with a stock award, the shares that are forfeited or repurchased or reacquired will revert to and again become available for issuance under our 2020 Plan.

Plan Administration. Our board of directors, or a duly authorized committee of our board of directors, will administer our 2020 Plan. Our board of directors may delegate to one or more of our officers the authority to (1) designate employees (other than officers) to receive specified stock awards and (2) determine the number of shares subject to such stock awards. Under our 2020 Plan, our board of directors will have the authority to determine stock award recipients, the types of stock awards to be granted, the grant dates, the number of shares subject to each stock award, the fair market value of our common stock, and the provisions of each stock award, including the period of exercisability and the vesting schedule applicable to a stock award.

Under our 2020 Plan, our board of directors also generally will have the authority to effect, with the consent of any materially adversely affected participant, (1) the reduction of the exercise, purchase, or strike price of any outstanding option or stock appreciation right; (2) the cancellation of any outstanding option or stock appreciation right and the grant in substitution therefore of other awards, cash, or other consideration; or (3) any other action that is treated as a repricing under generally accepted accounting principles.

Stock Options. ISOs and NSOs are granted under stock option agreements adopted by the administrator. The administrator will determine the exercise price for stock options, within the terms and conditions of our 2020 Plan, except the exercise price of a stock option generally will not be less than 100% of the fair market value of our common stock on the date of grant. Options granted under our 2020 Plan will vest at the rate specified in the stock option agreement as will be determined by the administrator.

The administrator will determine the term of stock options granted under our 2020 Plan, up to a maximum of 10 years. Unless the terms of an optionholder's stock option agreement, or other written agreement between us and the recipient, provide otherwise, if an optionholder's service relationship with us or any of our affiliates ceases for any reason other than disability, death or cause, the optionholder may generally exercise any vested options for a period of three months following the cessation of service. This period may be extended in the event that exercise of the option is prohibited by applicable securities laws. If an optionholder's service relationship with us or any of our affiliates ceases due to death, or an optionholder dies within a certain period following cessation of service, the optionholder or a beneficiary may generally exercise any vested options for a period of 18 months following the date of death. If an optionholder's service relationship with us or any of our affiliates ceases due to disability, the optionholder may generally exercise any vested options for a period of 12 months following the cessation of service. In the event of a termination for cause, options generally terminate upon the termination date. In no event may an option be exercised beyond the expiration of its term.

Acceptable consideration for the purchase of common stock issued upon the exercise of a stock option will be determined by the administrator and may include (1) cash, check, bank draft or money order, (2) a broker-assisted cashless exercise, (3) the tender of shares of our common stock previously owned by the optionholder, (4) a net exercise of the option if it is an NSO or (5) other legal consideration approved by the administrator.

Unless the administrator provides otherwise, options or stock appreciation rights generally are not transferable except by will or the laws of descent and distribution. Subject to approval of the administrator or a duly authorized officer, an option may be transferred pursuant to a domestic relations order, official marital settlement agreement or other divorce or separation instrument.

Tax Limitations on ISOs. The aggregate fair market value, determined at the time of grant, of our common stock with respect to ISOs that are exercisable for the first time by an award holder during any calendar year under all of our stock plans may not exceed $100,000. Options or portions thereof that exceed such limit will generally be treated as NSOs. No ISO may be granted to any person who, at the time of the grant, owns or is deemed to own stock possessing more than 10% of our total combined voting power or that of any of our parent or subsidiary corporations unless (1) the option exercise price is at least 110% of the fair market value of the stock subject to the option on the date of grant, and (2) the term of the ISO does not exceed five years from the date of grant.

Restricted Stock Unit Awards. Restricted stock unit awards are granted under restricted stock unit award agreements adopted by the administrator. Restricted stock unit awards may be granted in consideration for any form of legal consideration that may be acceptable to our board of directors and permissible under applicable law. A restricted stock unit award may be settled by cash, delivery of stock, a combination of cash and stock as deemed appropriate by the administrator, or in any other form of consideration set forth in the restricted stock unit award agreement. Additionally, dividend equivalents may be credited in respect of shares covered by a restricted stock unit award. Except as otherwise provided in the applicable award agreement, or other written agreement between us and the recipient, restricted stock unit awards that have not vested will be forfeited once the participant's continuous service ends for any reason.

Restricted Stock Awards. Restricted stock awards are granted under restricted stock award agreements adopted by the administrator. A restricted stock award may be awarded in consideration for cash, check, bank draft or money order, past or future services to us, or any other form of legal consideration that may be acceptable to our board of directors and permissible under applicable law. The administrator will determine the terms and conditions of restricted stock awards, including vesting and forfeiture terms. If a participant's service relationship with us ends for any reason, we may receive any or all of the shares of common stock held by the participant that have not vested as of the date the participant terminates service with us through a forfeiture condition or a repurchase right.

Stock Appreciation Rights. Stock appreciation rights are granted under stock appreciation right agreements adopted by the administrator. The administrator will determine the purchase price or strike price for a stock appreciation right, which generally will not be less than 100% of the fair market value of our common stock on the date of grant. A stock appreciation right granted under our 2020 Plan will vest at the rate specified in the stock appreciation right agreement as will be determined by the administrator. Stock appreciation rights may be settled in cash or shares of our common stock or in any other form of payment as determined by our board of directors and specified in the stock appreciation right agreement.

The administrator will determine the term of stock appreciation rights granted under our 2020 Plan, up to a maximum of ten years. If a participant's service relationship with us or any of our affiliates ceases for any reason other than cause, disability or death, the participant may generally exercise any vested stock appreciation right for a period of three months following the cessation of service. This period may be further extended in the event that exercise of the stock appreciation right following such a termination of service is prohibited by applicable securities laws. If a participant's service relationship with us, or any of our affiliates, ceases due to disability or death, or a participant dies within a certain period following cessation of service, the participant or a beneficiary may generally exercise any vested stock appreciation right for a period of 12 months in the event of disability and 18 months in the event of death. In the event of a termination for cause, stock appreciation rights generally terminate upon the termination date. In no event may a stock appreciation right be exercised beyond the expiration of its term.

Performance Awards. Our 2020 Plan will permit the grant of performance awards that may be settled in stock, cash or other property. Performance awards may be structured so that the stock or cash will be issued or paid only following the achievement of certain pre-established performance goals during a designated performance period. Performance awards that are settled in cash or other property are not required to be valued in whole or in part by reference to, or otherwise based on, our common stock.

The performance goals may be based on any measure of performance selected by our board of directors. The performance goals may be based on company-wide performance or performance of one or more business units, divisions, affiliates or business segments, and may be either absolute or relative to the performance of one or more comparable companies or the performance of one or more relevant indices. Unless specified otherwise by our board of directors at the time the performance award is granted, our board will appropriately make adjustments in the method of calculating the attainment of performance goals as follows: (i) to exclude restructuring or other nonrecurring charges; (ii) to exclude exchange rate effects; (iii) to exclude the effects of changes to generally accepted accounting principles; (iv) to exclude the effects of any statutory adjustments to corporate tax rates; (v) to exclude the effects of items that are "unusual" in nature or occur "infrequently" as determined under generally accepted accounting principles; (vi) to exclude the dilutive effects of acquisitions or joint ventures; (vii) to assume that any business divested by us achieved performance objectives at targeted levels during the balance of a performance period following such divestiture; (viii) to exclude the effect of any change in the outstanding shares of our common stock by reason of any stock dividend or split, stock repurchase, reorganization, recapitalization, merger, consolidation, spin-off, combination or exchange of shares or other similar corporate change, or any distributions to common stockholders other than regular cash dividends; (ix) to exclude the effects of stock based compensation and the award of bonuses under our bonus plans; (x) to exclude costs incurred in connection with potential acquisitions or divestitures that are required to be expensed under generally accepted accounting principles; and (xi) to exclude the goodwill and intangible asset impairment charges that are required to be recorded under generally accepted accounting principles.

Other Stock Awards. The administrator will be permitted to grant other awards based in whole or in part by reference to our common stock. The administrator will set the number of shares under the stock award (or cash equivalent) and all other terms and conditions of such awards.

Non-Employee Director Compensation Limit. The aggregate value of all compensation granted or paid to any non-employee director with respect to any calendar year, including awards granted and cash fees paid by us to such non-employee director, will not exceed $500,000 in total value.

Changes to Capital Structure. In the event there is a specified type of change in our capital structure, such as a stock split, reverse stock split or recapitalization, appropriate adjustments will be made to (1) the class and maximum number of shares reserved for issuance under our 2020 Plan, (2) the class and maximum number of shares by which the share reserve may increase automatically each year, (3) the class and maximum number of shares that may be issued on the exercise of ISOs, and (4) the class and number of shares and exercise price, strike price or purchase price, if applicable, of all outstanding stock awards.

Corporate Transactions. In the event of a corporate transaction (as defined below), unless otherwise provided in a participant's stock award agreement or other written agreement with us or one of our affiliates or unless otherwise expressly provided by the administrator at the time of grant, any stock awards outstanding under our 2020 Plan may be assumed, continued or substituted for by any surviving or acquiring corporation (or its parent company), and any reacquisition or repurchase rights held by us with respect to the stock award may be assigned to the successor (or its parent company). If the surviving or acquiring corporation (or its parent company) does not assume, continue or substitute for such stock awards, then (i) with respect to any such stock awards that are held by participants whose continuous service has not terminated prior to the effective time of the corporate transaction, or current participants, the vesting (and exercisability, if applicable) of such stock awards will be accelerated in full (or, in the case of performance awards with multiple vesting levels depending on the level of performance, vesting will accelerate at 100% of the target level) to a date prior to the effective time of the corporate transaction (contingent upon the effectiveness of the corporate transaction), and such stock awards will terminate if not exercised (if applicable) at or prior to the effective time of the corporate transaction, and any reacquisition or repurchase rights held by us with respect to such stock awards will lapse (contingent upon the effectiveness of the corporate transaction), and (ii) any such stock awards that are held by persons other than current participants will terminate if not exercised (if applicable) prior to the effective time of the corporate transaction, except that any reacquisition or repurchase rights held by us with respect to such stock awards will not terminate and may continue to be exercised notwithstanding the corporate transaction.

In the event a stock award will terminate if not exercised prior to the effective time of a corporate transaction, the administrator may provide, in its sole discretion, that the holder of such stock award may not exercise such stock award but instead will receive a payment equal in value to the excess (if any) of (i) the value of the property the participant would have received upon the exercise of the stock award, over (ii) any per share exercise price payable by such holder, if applicable. In addition, any escrow, holdback, earn out or similar provisions in the definitive agreement for the corporate transaction may apply to such payment to the same extent and in the same manner as such provisions apply to the holders of our common stock.

Under our 2020 Plan, a "corporate transaction" is generally the consummation of (i) a sale or other disposition of all or substantially all of our consolidated assets; (ii) a sale or other disposition of at least 50% of our outstanding securities; (iii) a merger, consolidation or similar transaction following which we are not the surviving corporation; or (iv) a merger, consolidation or similar transaction following which we are the surviving corporation but the shares of our common stock outstanding immediately prior to such transaction are converted or exchanged into other property by virtue of the transaction.

Change in Control. Stock awards granted under our 2020 Plan may be subject to acceleration of vesting and exercisability upon or after a change in control (as defined below) as may be provided in the applicable stock award agreement or in any other written agreement between us or any affiliate and the participant, but in the absence of such provision, no such acceleration will automatically occur.

Under our 2020 Plan, a "change in control" is generally (i) the acquisition by any person or company of more than 50% of the combined voting power of our then outstanding stock; (ii) a merger, consolidation or similar transaction in which our stockholders immediately before the transaction do not own, directly or indirectly, more than 50% of the combined voting power of the surviving entity (or the parent of the surviving entity) in substantially the same proportions as their ownership immediately prior to such transaction; (iii) stockholder approval of a complete dissolution or liquidation; (iv) a sale, lease, exclusive license or other disposition of all or substantially all of our assets other than to an entity more than 50% of the combined voting power of which is owned by our stockholders in substantially the same proportions as their ownership of our outstanding voting securities immediately prior to such transaction; or (v) when a majority of our board of directors becomes comprised of individuals who were not serving on our board of directors on the date of the underwriting agreement related to this offering, or the incumbent board, or whose nomination, appointment, or election was not approved by a majority of the incumbent board still in office.

Plan Amendment or Termination. Our board of directors has the authority to amend, suspend or terminate our 2020 Plan at any time, provided that such action does not materially impair the existing rights of any participant without such participant's written consent. Certain material amendments also require the approval of our stockholders. No

ISOs may be granted after the tenth anniversary of the date our board of directors adopts our 2020 Plan. No stock awards may be granted under our 2020 Plan while it is suspended or after it is terminated.

2020 Stock Plan

Our 2020 Stock Plan (2020 Stock Plan) was adopted by our board of directors in June 2020, amended and restated by our board of directors in August 2020, and approved by our stockholders in September 2020. Our 2020 Stock Plan permitted the grant of incentive stock options within the meaning of Code Section 422 to our employees and to any of our parent or subsidiary corporation's employees, and nonstatutory stock options and restricted stock purchase rights to our employees, directors, and consultants and employees and consultants of any parent, subsidiary or affiliate of ours. Options to purchase the Company's common stock may be granted at a price not less than 100% of the fair market value in the case of ISO or NSO, except for an employee or nonemployee with options who owns more than 10% of the voting power of all classes of stock of the Company in which case the exercise price shall be no less than 110% of the fair market value per share on the grant date. Our 2020 Stock Plan terminates in connection with this offering, and thereafter we will not grant any additional awards under our 2020 Stock Plan. However, our 2020 Stock Plan will continue to govern the terms and conditions of the outstanding awards previously granted thereunder.

Share Reserve. As of June 30, 2020, options to purchase 189,900 shares of our common stock were outstanding under the 2020 Plan with a weighted-average exercise price of $1.40 per share, and 10,725 shares of our common stock remained available for future awards under our 2020 Stock Plan. Subsequent to June 30, 2020, we reserved an additional 850,000 shares of our common stock under the 2020 Stock Plan and we granted options to purchase 834,871 shares of our common stock with a weighted-average exercise price of $2.19 per share.

Administration. Our board of directors or a committee delegated by our board of directors administers our 2020 Stock Plan. Subject to the terms of our 2020 Stock Plan, the administrator has the power to, among other things, determine who will be granted awards, to determine the specific terms and conditions of each award (including the number of shares subject to the award and when the award will vest and, as applicable, become exercisable), to accelerate the time(s) at which an award may vest or be exercised, and to construe and interpret the 2020 Stock Plan and awards granted thereunder.

Capital Structure Changes. In the event of certain changes in our capital structure, such as a stock split or recapitalization, appropriate and proportionate adjustments will be made to the number of shares reserved for issuance under our 2020 Stock Plan; and the number of shares and price per share, if applicable, of all outstanding awards under our 2020 Stock Plan.

Corporate Transaction. Our 2020 Stock Plan provides that upon a corporate transaction, awards will be assumed or substituted in the transaction. If the surviving or acquiring corporation does not assume awards, they will terminate prior to the transaction, unless otherwise expressly provided in an individual award agreement or in any other written agreement with a participant. Under the 2020 Stock Plan, a corporate transaction is generally the consummation of (1) a sale of all or substantially all of our assets or (2) our merger, consolidation or capital reorganization with or into another corporation (including a change of control, as described below).

Change of Control. Unless otherwise expressly provided in an individual award agreement or in any other written agreement with a participant, in the event of a change of control, if a participant who holds an outstanding award that is assumed or substituted by a successor corporation in the change of control, or holds restricted stock issued upon exercise of an outstanding option or stock purchase right, is involuntarily terminated (as defined in the 2020 Stock Plan) by the successor corporation at, or within three months following, the closing of such transaction, then any such assumed or substituted awards will accelerate and become exercisable as to the number of shares that would otherwise have vested and been exercisable as of the date 30 days from the date of termination, and any repurchase right applicable to any shares will lapse as to the number of shares as to which the repurchase right would otherwise have lapsed as of the date 30 days from the date of termination. Under the 2020 Stock Plan, a change of control is generally (1) a sale of all or substantially all of our assets or (2) our merger or consolidation with or into another corporation, other than a merger or consolidation in which the stockholders holding more than

50% of our shares immediately before the transaction own more than 50% of the voting power following the merger or consolidation.

Amendment and Termination. Our board of directors may amend, suspend or terminate our 2020 Stock Plan at any time, subject to stockholder approval where such approval is required by applicable law. Our board of directors also may amend any outstanding award. However, no amendment to our 2020 Stock Plan or an award granted thereunder may impair a participant's rights under an award without his or her written consent. As discussed above, we will terminate our 2020 Stock Plan prior to the closing of this offering and no new awards will be granted thereunder following such termination.

2010 Stock Plan

Our Amended and Restated 2010 Stock Plan (2010 Plan) was adopted by our board of directors and approved by our stockholders in February 2010, and was most recently amended on October 29, 2019. Our 2010 Plan expired in February 2020. Our 2010 Plan permitted the grant of incentive stock options within the meaning of Code Section 422 to our employees and to any of our parent or subsidiary corporation's employees, and nonstatutory stock options and restricted stock purchase rights to our employees, directors, and consultants and employees and consultants of any parent, subsidiary or affiliate of ours. Options to purchase the Company's common stock may be granted at a price not less than 100% of the fair market value in the case of ISO or NSO, except for an employee or nonemployee with options who owns more than 10% of the voting power of all classes of stock of the Company in which case the exercise price shall be no less than 110% of the fair market value per share on the grant date. Our 2010 Plan will continue to govern the terms and conditions of the outstanding awards previously granted thereunder.

Share Reserve. As of June 30, 2020, options to purchase 3,300,788 shares of our common stock were outstanding under the 2010 Plan with a weighted-average exercise price of $1.70 per share, and no shares of our common stock remained available for future awards under our 2010 Plan.

Administration. Our board of directors or a committee delegated by our board of directors administers our 2010 Plan. Subject to the terms of our 2010 Plan, the administrator has the power to, among other things, determine who will be granted awards, to determine the specific terms and conditions of each award (including the number of shares subject to the award and when the award will vest and, as applicable, become exercisable), to accelerate the time(s) at which an award may vest or be exercised, and to construe and interpret the 2010 Plan and awards granted thereunder.

Capital Structure Changes. In the event of certain changes in our capital structure, such as a stock split or recapitalization, appropriate and proportionate adjustments will be made to the number of shares reserved for issuance under our 2010 Plan; and the number of shares and price per share, if applicable, of all outstanding awards under our 2010 Plan.

Corporate Transaction. Our 2010 Plan provides that upon a corporate transaction, awards will be assumed or substituted in the transaction. If the surviving or acquiring corporation does not assume awards, they will terminate prior to the transaction, unless otherwise expressly provided in an individual award agreement or in any other written agreement with a participant. Under the 2010 Plan, a corporate transaction is generally the consummation of (1) a sale of all or substantially all of our assets or (2) our merger, consolidation or capital reorganization with or into another corporation (including a change of control, as described below).

Change of Control. Unless otherwise expressly provided in an individual award agreement or in any other written agreement with a participant, in the event of a change of control, if a participant who holds an outstanding award that is assumed or substituted by a successor corporation in the change of control, or holds restricted stock issued upon exercise of an outstanding option or stock purchase right, is involuntarily terminated (as defined in the 2010 Plan) by the successor corporation at, or within three months following, the closing of such transaction, then any such assumed or substituted awards will accelerate and become exercisable as to the number of shares that would otherwise have vested and been exercisable as of the date 30 days from the date of termination, and any repurchase right applicable to any shares will lapse as to the number of shares as to which the repurchase right would otherwise have lapsed as of the date 30 days from the date of termination. Under the 2010 Plan, a change of control is generally (1) a sale of all or substantially all of our assets or (2) our merger or consolidation with or into another corporation, other than a merger or consolidation in which the stockholders holding more than 50% of our shares immediately before the transaction own more than 50% of the voting power following the merger or consolidation.

Amendment and Termination. Our board of directors may amend, suspend or terminate our 2010 Plan at any time, subject to stockholder approval where such approval is required by applicable law. Our board of directors also may amend any outstanding award. However, no amendment to our 2010 Plan or an award granted thereunder may impair a participant's rights under an award without his or her written consent. As discussed above, we will terminate our 2010 Plan prior to the closing of this offering and no new awards will be granted thereunder following such termination.

2020 Employee Stock Purchase Plan

Our 2020 Employee Stock Purchase Plan (2020 ESPP) was adopted by our board of directors and approved by our stockholders in September 2020 and will become effective on the date of the underwriting agreement related to this offering. The purpose of our ESPP will be to secure the services of new employees, to retain the services of existing employees, and to provide incentives for such individuals to exert maximum efforts toward our success and that of our affiliates. Our ESPP will include two components. One component will be designed to allow eligible U.S. employees to purchase our common stock in a manner that may qualify for favorable tax treatment under Section 423 of the Code. The other component will permit the grant of purchase rights that do not qualify for such favorable tax treatment in order to allow deviations necessary to permit participation by eligible employees who are foreign nationals or employed outside of the U.S. while complying with applicable foreign laws.

Share Reserve. Following this offering, our ESPP will authorize the issuance of 720,000 shares of our common stock under purchase rights granted to our employees or to employees of any of our designated affiliates. The number of shares of our common stock reserved for issuance will automatically increase on January 1 of each year for a period of ten years, beginning on January 1, 2021 and continuing through January 1, 2030, by the lesser of (1) 1% of the total number of shares of our common stock outstanding on December 1 of the immediately preceding year, and (2) 1,300,000 shares, except before the date of any such increase, our board of directors may determine that such increase will be less than the amount set forth in clauses (1) and (2).

Administration. Our board of directors will administer our ESPP and may delegate its authority to administer our ESPP to our compensation committee. Our ESPP will be implemented through a series of offerings under which eligible employees are granted purchase rights to purchase shares of our common stock on specified dates during such offerings. Under our ESPP, our board of directors will be permitted to specify offerings with durations of not more than 27 months, and to specify shorter purchase periods within each offering. Each offering will have one or more purchase dates on which shares of our common stock will be purchased for employees participating in the offering. Our ESPP will provide that an offering may be terminated under certain circumstances.

Payroll Deductions. Generally, all regular employees, including executive officers, employed by us or by any of our designated affiliates, will be eligible to participate in our ESPP and to contribute, normally through payroll deductions, up to 15% of their earnings (as defined in our ESPP) for the purchase of our common stock under our ESPP. Unless otherwise determined by our board of directors, common stock will be purchased for the accounts of employees participating in our ESPP at a price per share that is at least equal to the lesser of (1) 85% of the fair market value of a share of our common stock on the first day of an offering or (2) 85% of the fair market value of a share of our common stock on the date of purchase.

Limitations. Employees may have to satisfy one or more of the following service requirements before participating in our ESPP, as determined by our board of directors: (1) being customarily employed for more than 20 hours per week, (2) being customarily employed for more than five months per calendar year or (3) continuous employment with us or one of our affiliates for a period of time (not to exceed two years). No employee will be permitted to purchase shares under our ESPP at a rate in excess of $25,000 worth of our common stock (based on the fair market value per share of our common stock at the beginning of an offering) for each calendar year such a purchase right is outstanding. Finally, no employee will be eligible for the grant of any purchase rights under our ESPP if immediately after such rights are granted, such employee has voting power over 5% or more of our outstanding capital stock measured by vote or value under Section 424(d) of the Code.

Changes to Capital Structure. Our ESPP will provide that in the event there occurs a change in our capital structure through such actions as a stock split, merger, consolidation, reorganization, recapitalization, reincorporation, stock dividend, dividend in property other than cash, large nonrecurring cash dividend, liquidating dividend, combination of shares, exchange of shares, change in corporate structure or similar transaction, the board of directors will make appropriate adjustments to: (1) the class(es) and maximum number of shares reserved under our ESPP, (2) the class(es) and maximum number of shares by which the share reserve may increase automatically each year, (3) the class(es) and number of shares subject to and purchase price applicable to outstanding offerings and purchase rights, and (4) the class(es) and number of shares that are subject to purchase limits under ongoing offerings.

Corporate Transactions. Our ESPP will provide that in the event of a corporate transaction (as defined below), any then-outstanding rights to purchase our stock under our ESPP may be assumed, continued or substituted for by any surviving or acquiring entity (or its parent company). If the surviving or acquiring entity (or its parent company) elects not to assume, continue or substitute for such purchase rights, then the participants' accumulated payroll contributions will be used to purchase shares of our common stock within ten business days before such corporate transaction, and such purchase rights will terminate immediately after such purchase.

Under our ESPP, a "corporate transaction" is generally the consummation of: (1) a sale of or other disposition all or substantially all of our consolidated assets, (2) a sale or other disposition of at least 50% of our outstanding securities, (3) a merger, consolidation or similar transaction following which we are not the surviving corporation; or (4) a merger, consolidation or similar transaction following which we are the surviving corporation but the shares of our common stock outstanding immediately prior to such transaction are converted or exchanged into other property by virtue of the transaction.

Amendment or Termination. Our board of directors will have the authority to amend or terminate our ESPP, except in certain circumstances such amendment or termination may not materially impair any outstanding purchase rights without the holder's consent. We will obtain stockholder approval of any amendment to our ESPP as required by applicable law or listing requirements.

Limitations on Liability and Indemnification Matters

Upon the closing of this offering, our certificate of incorporation will contain provisions that limit the liability of our current and former directors for monetary damages to the fullest extent permitted by Delaware law. Delaware law provides that directors of a corporation will not be personally liable for monetary damages for any breach of fiduciary duties as directors, except liability for:

- any breach of the director's duty of loyalty to the corporation or its stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases or redemptions; or
- any transaction from which the director derived an improper personal benefit. Such limitation of liability does not apply to liabilities arising under federal securities laws and does not affect the availability of equitable remedies such as injunctive relief or rescission.

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

The limitation of liability and indemnification provisions in our certificate of incorporation and bylaws may discourage stockholders from bringing a lawsuit against our directors for breach of their fiduciary duty. They may also reduce the likelihood of derivative litigation against our directors and executive officers, even though an action, if successful, might benefit us and other stockholders. Further, a stockholder's investment may be adversely affected to the extent that we pay the costs of settlement and damage awards against directors and executive officers as required by these indemnification provisions.

At present, there is no pending litigation or proceeding involving any of our directors, executive officers or employees for which indemnification has been sought and we are not aware of any threatened litigation that may result in claims for indemnification.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted for directors, executive officers or persons controlling us, we have been informed that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Rule 10b5-1 Sales Plans

Our directors and executive officers may adopt written plans that are intended to comply with Rule 10b5-1 under the Exchange Act, known as Rule 10b5-1 plans, in which they will contract with a broker to buy or sell shares of our common stock on a periodic basis. Under a Rule 10b5-1 plan, a broker executes trades pursuant to parameters established by the director or executive officer when entering into the plan, without further direction from them. The director or officer may amend a Rule 10b5-1 plan in some circumstances and may terminate a plan at any time. Our directors and executive officers also may buy or sell additional shares outside of a Rule 10b5-1 plan when they are not in possession of material nonpublic information subject to compliance with the terms of our insider trading policy. Prior to the expiration of the period ending on, and including, the 180th day after the date of this prospectus, the sale of any shares under such plan would be subject to the lock-up agreement that the director or executive officer has entered into with the underwriters.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

The following is a summary of transactions since January 1, 2017 to which we have been a participant in which the amount involved exceeded or will exceed $120,000, and in which any of our then directors, executive officers or holders of more than 5% of any class of our capital stock at the time of such transaction, or any members of their immediate family, had or will have a direct or indirect material interest, other than compensation arrangements which are described in "Executive Compensation" and "Management—Non-Employee Director Compensation."

Series F-1 Preferred Stock Financing

In May 2016, we issued and sold 1,515,151 shares of our Series F-1 preferred stock to Boston Scientific Corporation at a price of $13.20 per share for aggregate gross proceeds of approximately $20.0 million. In January 2017, we issued and sold 757,575 shares of our Series F-1 preferred stock to Boston Scientific Corporation at a price of $13.20 per share for aggregate gross proceeds of approximately $10.0 million. Each share of Series F-1 preferred stock will automatically convert into one share of our common stock upon the closing of this offering.

Series G-1 Preferred Stock Financing

In April 2019, we issued and sold an aggregate of 4,934,231 shares of our Series G-1 preferred stock at a price of $13.20 per share for aggregate gross proceeds of $65.1 million, including the conversion of $25.1 million of outstanding indebtedness under the Second Lien Loan and Security Agreement with BSC (BSC Agreement). Each share of Series G-1 preferred stock will automatically convert into 1.0120 shares of common stock (based on an assumed initial public offering price of $15.00 per share, the midpoint of the price range set forth on the cover page of this prospectus) upon the closing of this offering. The following table summarizes the participation in the foregoing transactions by our directors, executive officers and holders of more than 5% of any class of our capital stock as of the date of such transactions:

Related Party	Shares of Series G-1 Preferred Stock	Aggregate Purchase Price
Entities affiliated with Ally Bridge Group	1,136.363	$ 15,000,000
Entities affiliated with LVP Life Science Ventures III, L.P.	228.989	$ 3,022,679
Montreux Growth Partners II, L.P.	226.345	$ 2,987,758
Boston Scientific Corporation	2,081.909	$ 27,481,213

Loan and Security Agreement with BSC

In May 2017, we entered into the BSC Agreement. For more information regarding this agreement, see "Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources; Plan of Operation."

2020 Convertible Note Financing

In April 2020, we entered into a convertible promissory note purchase agreement with certain new and existing investors, pursuant to which we issued $33.0 million aggregate principal amount of convertible promissory notes, or the 2020 Notes. We have the option to call up to an additional $33.0 million for a maximum aggregate amount of $66.0 million, subject to customary closing conditions; provided that any such call be for no less than $5.0 million on or prior to April 17, 2022. All unpaid interest and principal will be due and payable upon request of the majority of Lenders on or after the earlier of April 17, 2022 or an event of default. The 2020 Notes accrue interest at a rate equal to 2.0% above the Wall Street Journal Prime Rate. Upon the closing of this offering, the 2020 Notes, including accrued interest thereon, will automatically convert into a number of shares of common stock at a per share conversion price equal to the lesser of (i) 85% of the initial public offering price and (ii) $13.20 per share. See the notes to our consolidated financial statements included elsewhere in this prospectus.

The following table summarizes the participation in the foregoing transactions by our directors, executive officers and holders of more than 5% of any class of our capital stock as of the date of such transactions:

Related Party	Aggregate Principal Amount of the 2020 Notes
Entities affiliated with Ally Bridge Group	$ 10,500,000
Entities affiliated with LVP Life Science Ventures III, L.P.	$ 1,500,000

Investor Rights, Voting and Co-Sale Agreements

In connection with our preferred stock financings, we entered into investor rights, voting, and right of first refusal and co-sale agreements containing registration rights, information rights, voting rights, and rights of first refusal, among other things, with certain holders of our preferred stock and certain holders of our common stock, including entities affiliated with Montreux Equity Partners, an entity affiliated with Dr. Matly, entities affiliated with De Novo Ventures, an entity affiliated with Mr. Ferrari, entities affiliated with Latterell Venture Partners, an entity affiliated with Mr. Salmon, entities affiliated with HealthCap V L.P., an entity affiliated with Mr. Lindstrand, entities affiliated with KPCB Holdings, Inc., an entity affiliated with Mr. Mead, and entities affiliated with Ally Bridge Group, an entity affiliated with Mr. Chon. These stockholder agreements will terminate upon the closing of this offering, except for the registration rights granted under our investor rights agreement, as more fully described in "Description of Capital Stock—Registration Rights."

Employment Agreements; Offer Letter Agreements

We have entered into offer letter agreements with certain of our executive officers. For more information regarding these agreements with our named executive officers, see "Executive Compensation—Employment, Severance, and Change in Control Agreements."

Stock Option Grants to Directors and Executive Officers

We have granted stock options to certain of our directors and executive officers. For more information regarding the stock options and stock awards granted to our directors and named executive officers, see "Executive Compensation" and "Management—Non-Employee Director Compensation."

Indemnification Agreements

Our amended and restated certificate of incorporation will contain provisions limiting the liability of directors, and our amended and restated bylaws will provide that we will indemnify each of our directors and officers to the fullest extent permitted under Delaware law. Our amended and restated certificate of incorporation and bylaws will also provide our board of directors with discretion to indemnify our employees and other agents when determined to be appropriate by the board. In addition, we have entered into an indemnification agreement with each of our directors and executive officers, which requires us to indemnify them to the fullest extent permitted by the Delaware General Corporation Law. For more information regarding these agreements, see the section entitled "Executive Compensation—Limitations on Liability and Indemnification Matters."

Related-Person Transaction Policy

In connection with this offering, we intend to adopt a policy that our executive officers, directors, holders of more than 5% of any class of our voting securities, and any member of the immediate family of and any entity affiliated with any of the foregoing persons, will not be permitted to enter into a related-party transaction with us without the prior consent of our audit committee, or other independent members of our board of directors in the event it is inappropriate for our audit committee to review such transaction due to a conflict of interest. Any request for us to enter into a transaction with an executive officer, director, principal stockholder or any of their immediate family members or affiliates, in which the amount involved exceeds $120,000, must first be presented to our audit committee for review, consideration, and approval. In approving or rejecting any such proposal, our audit committee will consider the relevant facts and circumstances available and deemed relevant to our audit committee, including, but not limited to, whether the transaction will be on terms no less favorable than terms generally available to an unaffiliated third-party under the same or similar circumstances and the extent of the related-party's interest in the transaction.

All of the transactions described in this section were entered into prior to the adoption of this policy. Although we have not had a written policy for the review and approval of transactions with related persons, our board of directors has historically reviewed and approved any transaction where a director or officer had a financial interest, including the transactions described above. Prior to approving such a transaction, the material facts as to relationship or interest of the relevant director, officer or holder of 5% or more of any class of our voting securities in the agreement or transaction was disclosed to our board of directors. Our board of directors took this information into account when evaluating the transaction and in determining whether such transaction was fair to us and in the best interest of all our stockholders.

PRINCIPAL STOCKHOLDERS

The following table sets forth the beneficial ownership of our common stock as of June 30, 2020, as adjusted to reflect the sale of common stock offered by us in this offering, for:

- each person, or group of affiliated persons, who is known by us to beneficially own more than 5% of our common stock;
- each of our named executive officers;
- each of our directors; and
- all of our executive officers and directors as a group.

The percentage ownership information shown in the table prior to this offering is based upon 19,964,521 shares of common stock outstanding as of June 30, 2020, after giving effect to the conversion of all outstanding shares of preferred stock into 17,856,229 shares of our common stock immediately prior to the closing of this offering (assuming a conversion ratio equal to approximately 1.0120 shares of common stock for each share of Series G-1 preferred stock based on an assumed initial public offering price of $15.00 per share, the midpoint of the price range set forth on the cover page of this prospectus).

The percentage ownership information shown in the table after this offering is based upon shares outstanding as described in the preceding paragraph, and also assuming (i) the sale of shares of our common stock by us in the offering and no exercise of the underwriters' option to purchase additional shares of common stock and (ii) the automatic conversion of $33.0 million aggregate principal amount of the 2020 Notes plus accrued interest thereon into 2,650,773 shares of our common stock in connection with the closing of this offering based on the assumed initial public offering price of $15.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and an assumed closing date of this offering and conversion date of October 2, 2020.

We have determined beneficial ownership in accordance with the rules of the SEC. These rules generally attribute beneficial ownership of securities to persons who possess sole or shared voting power or investment power with respect to those securities. In addition, the rules include shares of common stock issuable pursuant to the exercise of stock options or warrants that are either immediately exercisable or exercisable on or before August 29, 2020 which is 60 days after June 30, 2020. These shares are deemed to be outstanding and beneficially owned by the person holding those options or warrants for the purpose of computing the percentage ownership of that person, but they are not treated as outstanding for the purpose of computing the percentage ownership of any other person. Unless otherwise indicated, the persons or entities identified in this table have sole voting and investment power with respect to all shares shown as beneficially owned by them, subject to applicable community property laws.

Except as otherwise noted below, the address for persons listed in the table is c/o Pulmonx Corporation, 700 Chesapeake Drive, Redwood City, California, 94063.

Name of Beneficial Owner	Number of Shares Beneficially Owned Before this Offering	Percentage of Shares Beneficially Owned Before this Offering	Number of Shares Beneficially Owned After this Offering	Percentage of Shares Beneficially Owned After this Offering
Principal Stockholders				
Boston Scientific Corporation(1)	6,013,089	30.12 %	6,013,089	22.58 %
KPCB Holdings, Inc.(2)	1,524,109	7.63	1,524,109	5.72
Entities Affiliated with LVP III Associates, L.P.(3)	1,453,334	7.28	1,573,823	5.91
Entities Affiliated with Montreux Equity Partners(4)	1,432,657	7.18	1,432,657	5.38
De Novo Ventures III Liquidating Trust(5)	1,232,321	6.17	1,232,321	4.63
Entities Affiliated with Ally Bridge Group(6)	1,149,999	5.76	1,993,428	7.49
Entities Affiliated with HealthCap V L.P.(7)	1,133,728	5.68	1,133,728	4.26
Directors and Named Executive Officers				
Glendon E. French(8)	1,278,452	6.03	1,278,452	4.59
Derrick Sung, Ph.D.(9)	228,658	1.14	228,658	*
Geoffrey Beran Rose(10)	282,907	1.40	282,907	1.05
Thomas W. Burns	—	*	—	*
Charles Chon	—	*	—	*
Richard Ferrari	—	*	—	*
Daniel Florin(11)	6,000	*	6,000	*
Georgia Garinois-Melenikiotou	—	*	—	*
Staffan Lindstrand	—	*	—	*
Dana G. Mead, Jr.(12)	6,000	*	6,000	*
Michael Matly, M.D.(13)	229,061	1.15	229,061	*
Rodney Perkins, M.D.(14)	326,703	1.63	326,703	1.22
Stephen Salmon	—	*	—	*
Oern Stuge, M.D.(15)	90,003	*	90,003	*
All directors and executive officers as a group (12 persons)(16)	2,447,784	11.29	2,447,784	8.63

* Represents beneficial ownership of less than 1%

(1) The principal business address for Boston Scientific Corporation is 300 Boston Scientific Way, Marlborough, MA 01752-1234.

(2) Consists of (a) 1,182,920 shares of our Series C-1 Preferred Stock held by Kleiner Perkins Caufield & Byers XIII, LLC (“KPCB XIII”) and 85,491 shares held by individuals and entities associated with Kleiner Perkins Caufield & Byers (“KPCB”), (b) 156,885 shares of our Series D-1 Preferred Stock held by KPCB XIII and 11,338 shares held by individuals and entities associated with KPCB and (c) 81,579 shares of our Series E-1 Preferred Stock held by KPCB XIII and 5,896 shares held by individuals and entities associated with KPCB. All shares are held for convenience in the name of “KPCB Holdings, Inc., as nominee” for the accounts of such individuals and entities. The managing member of KPCB XIII is KPCB XIII Associates, LLC (“KPCB XIII Associates”). L. John Doerr, Raymond J. Lane, Theodore E. Schlein and Brook H. Byers, the managing members of KPCB XIII Associates, exercise shared voting and dispositive control over the shares held by KPCB XIII. The principal business address for all entities and individuals affiliated with KPCB is c/o Kleiner Perkins Caufield & Byers, LLC, 2750 Sand Hill Road, Menlo Park, CA 94025.

(3) Consists of (a) 67,594 shares held by LVP III Associates, L.P., (b) 33,796 shares held by LVP III Partners, L.P. and (c) 1,351,944 shares held by LVP Life Science Ventures III, L.P. The number of shares beneficially owned after this offering also includes 120,489 shares to be received at the closing of this offering upon the conversion of the 2020 Notes, plus accrued interest thereon, into shares of our common stock based on the assumed initial public offering price of $15.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and an assumed closing date of this offering and conversion date of October 2, 2020. LVP GP III, LLC is the general partner of LVP III Associates, L.P., LVP III Partners, L.P. and LVP Life Science Ventures III, L.P. Patrick Latterell, Stephen Salmon and James Woody, the members of LVP GP III, LLC, share voting and investment power with respect to these shares. The principal business address for all entities and individuals affiliated with Latterell Venture Partners is 2603 Camino Ramon, Suite 200, San Ramon, CA 94583.

(4) Consists of (a) 560,010 shares held by Montreux Equity Partners II SBIC, L.P. ("Montreux Equity II"), (b) 643,586 shares held by Montreux Equity Partners III SBIC, L.P. ("Montreux Equity III") and (c) 229,061 shares held by Montreux Growth Partners II, L.P. ("Montreux Growth"). Montreux Equity Management II SBIC, LLC is the general partner of Montreux Equity II, Montreux Equity Management III SBIC, LLC is the general partner of Montreux Equity III and Montreux Growth Management II, LLC is the general partner of Montreux Growth. Daniel K. Turner III is the managing member of Montreux Equity Management II SBIC, LLC and Montreux Equity Management III SBIC, LLC. Daniel K. Turner III and Dr. Michael Matly are the managing members of Montreux Growth Management II, LLC. The principal business address for all entities and individuals affiliated with Montreux Equity Partners is Four Embarcadero Center, Suite 3720, San Francisco, CA 94111.

(5) The trustees of the De Novo Ventures III Liquidating Trust ("De Novo") are Fred Dotzler, Richard Ferrari, Joseph Mandato and Jay Watkins. These trustees exercise shared voting and dispositive control over the shares held by De Novo. The address for De Novo is PO Box 2160, Saratoga, California 95070.

(6) Consists of (a) 306,666 shares held by ABG YY Limited ("ABG YY") and (b) 843,333 shares held by ABG-Pulmonx Limited ("ABG Pulmonx"). The number of shares beneficially owned after this offering also includes 843,429 shares to be received by ABG WTT-Pulmonx Limited ("ABG WTT") at the closing of this offering upon the conversion of the 2020 Notes, plus accrued interest thereon, into shares of our common stock based on the assumed initial public offering price of $15.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and an assumed closing date of this offering and conversion date of October 2, 2020. Ally Bridge Group Innovation Capital Partners III, L.P. exercises voting and dispositive control of all shares held by ABG Pulmonx. ABG Innovation Capital Partners III GP Limited is the general partner of ABG Innovation Capital Partners III GP, L.P., which is the general partner of Ally Bridge Group Innovation Capital Partners III, L.P. Mr. Fan Yu (Frank) is the sole shareholder and a director of ABG Innovation Capital Partners III GP Limited. Mr. Fan Yu (Frank) is also the sole shareholder and a director of ABG Management Ltd., which has a contractual right to appoint a director to ABG YY's board of directors, thus sharing the voting and dispositive control of all shares held by ABG YY. ABG WTT is wholly owned by Ally Bridge Group-WTT Global Life Science Capital Partners, L.P. Mr. Fan Yu (Frank) is a member of the investment committee of ABG-WTT Global Life Science Capital Partners GP Limited, the general partner of ABG-WTT Global Life Science Capital Partners GP, L.P., which is the general partner of Ally Bridge Group-WTT Global Life Science Capital Partners, L.P., and, in such capacity, shares voting control and investment control with other members of the investment committee with respect to any securities owned by ABG WTT. Mr. Charles Chon is a partner and managing director of Ally Bridge Group. The principal business address for all entities and individuals affiliated with Ally Bridge Group is Unit 3002-3004, 30/F., Gloucester Tower, The Landmark, 15 Queen's Road Central, Hong Kong; ABG YY Limited: 27/F, No. 238 Des Voeux Road Central, Hong Kong.

(7) Consists of (a) 1,116,724 shares held by HealthCap V, L.P. ("HCLP") and (b) 17,004 shares held by OFCO Club V ("OFCO"). HealthCap V GP SA ("HCSA") is the sole general partner of HCLP. HCSA has voting and dispositive power over the shares held by HCLP. Björn Odlander, Peder Fredrikson, Staffan Lindstrand, Anki Forsberg, Per Samuelsson, Johan Christenson, Jacob Gunterberg, Mårten Steen, Per-Olof Eriksson, Carl-Johan Dalsgaard and Eugen Steiner, the members of HCSA, may be deemed to possess voting and dispositive power over the shares held by HCLP and may be deemed to have indirect beneficial ownership of the shares held by such entities. The principal business address for HCSA is c/o HealthCap V GP SA, 18, Avenue d'Ouchy, 1006 Lausanne, Switzerland. OFP V Advisor AB, ("OFP V AB") is a member of OFCO and has voting and dispositive control over the shares held by OFCO. Björn Odlander, Per Olof Eriksson, and Ann Christine Forsberg are members of the Board of OFP V AB. Further, Björn Odlander, Peder Fredrikson, Staffan Lindstrand, Ann Christine Forsberg, Per Samuelsson, Johan Christenson, Jacob Gunterberg, Per-Olof Eriksson, Carl-Johan Dalsgaard and Eugen Steiner are directly or indirectly members of OFP V AB and may be deemed to possess voting and dispositive control over the shares held by OFCO and may be deemed to have indirect beneficial ownership of the shares held by OFCO. The principal address for OFP V AB and individuals affiliated with HealthCap is Engelbrektsplan 1, 114 34 Stockholm, Sweden.

(8) Represents (a) 28,571 shares held by Glendon E. French III Children's Irrevocable Trust dated November 17, 1998, (b) 1,249,881 shares issuable pursuant to immediately exercisable options, including 1,058,676 shares issuable following exercise of such options that are scheduled to vest within 60 days of June 30, 2020. In February 2020 the Board accelerated the vesting of certain of these options in full.

(9) Represents (a) 152,439 shares held by Mr. Sung, 104,802 of which are subject to a right of repurchase by us as of August 29, 2020, 60 days after June 30, 2020 and (b) 76,219 shares issuable pursuant to immediately exercisable options,including 6,351 shares issuable following exercise of such options that are scheduled to vest within 60 days of June 30, 2020.

(10) Represents (a) 57,563 shares held by Mr. Rose and (b) 225,344 shares issuable pursuant to immediately exercisable options, including 134,885 shares issuable following exercise of such options that are scheduled to vest within 60 days of June 30, 2020.

(11) Represents 6,000 shares issuable pursuant to an immediately exercisable option, including 5,000 shares issuable following exercise of such option that are scheduled to vest within 60 days of June 30, 2020.

(12) Represents 6,000 shares issuable pursuant to an immediately exercisable option, including 5,000 shares issuable following exercise of such option that are scheduled to vest within 60 days of June 30, 2020.

(13) Consists of 229,061 shares held by Montreux Growth Partners II, L.P. ("Montreux Growth"). Montreux Growth Management II, LLC is the general partner of Montreux Growth. Daniel K. Turner III and Dr. Michael Matly are the managing members of Montreux Growth Management II, LLC. The principal business address for all entities and individuals affiliated with Montreux Equity Partners is Four Embarcadero Center, Suite 3720, San Francisco, CA 94111.

(14) Represents (a) 10,000 shares held by Rodney C. Perkins, as Trustee of the Perkins Family Revocable Trust dated February 28, 1986, (b) 220,203 shares held by Mr. Perkins and (c) 96,500 shares issuable pursuant to immediately exercisable options, all of which are scheduled to vest within 60 days of June 30, 2020.

(15) Represents (a) 26,254 shares held by Mr. Stuge and (b) 63,749 shares issuable pursuant to immediately exercisable options, all of which are scheduled to vest within 60 days of June 30, 2020.

(16) Includes (a) 724,091 shares and (b) 1,723,693 shares issuable pursuant to immediately exercisable options, including 1,370,161 shares issuable following exercise of such options that are scheduled to vest within 60 days of June 30, 2020.

DESCRIPTION OF CAPITAL STOCK

The following description of our capital stock, certain provisions of our amended and restated certificate of incorporation and amended and restated bylaws, as each will be in effect upon the closing of this offering, and certain provisions of Delaware law are summaries. You should also refer to the amended and restated certificate of incorporation and the amended and restated bylaws, which are filed as exhibits to the registration statement of which this prospectus is part. We refer in this section to our amended and restated certificate of incorporation and amended and restated bylaws that we intend to adopt in connection with this offering as our certificate of incorporation and bylaws, respectively.

General

Upon the closing of this offering, our amended and restated certificate of incorporation will authorize us to issue up to 200,000,000 shares of our common stock, $0.001 per value per share. In addition, our amended and restated certificate of incorporation will authorize 10,000,000 shares of undesignated preferred stock, $0.001 par value per share, the rights, preferences, and privileges of which may be designated from time to time by our board of directors.

As of June 30, 2020, we had (i) 2,108,292 shares of common stock held by 273 stockholders of record, (ii) 17,797,026 shares of preferred stock outstanding and (iii) $33.0 million aggregate principal amount of the 2020 Notes plus accrued interest outstanding.

After giving effect to the conversion of all outstanding shares of preferred stock outstanding as of June 30, 2020 into an aggregate of 17,856,229 shares of common stock immediately upon the closing of this offering (assuming a conversion ratio equal to approximately 1.0120 shares of common stock for each share of Series G-1 preferred stock based on an assumed initial public offering price of $15.00 per share, the midpoint of the price range set forth on the cover page of this prospectus) and the issuance of 2,650,773 shares of common stock in connection with the closing of this offering as a result of the automatic conversion of $33.0 million aggregate principal amount of the 2020 Notes plus accrued interest thereon into 2,650,773 shares of our common stock based on the assumed initial public offering price of $15.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and an assumed closing date of this offering and conversion date of October 2, 2020, there would have been 22,615,294 shares of common stock outstanding on June 30, 2020, held by 331 stockholders of record. As of June 30, 2020, we also had outstanding options to acquire 3,490,688 shares of common stock and we granted options to purchase 834,871 shares of our common stock after June 30, 2020.

Common Stock

Dividend and Distribution Rights

Subject to preferences that may be applicable to any then-outstanding preferred stock, holders of our common stock are entitled to receive ratably those dividends, if any, as may be declared from time to time by the board of directors out of legally available funds.

Voting Rights

Each holder of our common stock is entitled to one vote for each share on all matters submitted to a vote of the stockholders, including the election of directors. Under our amended and restated certificate of incorporation and amended and restated bylaws, our stockholders will not have cumulative voting rights. Because of this, the holders of a majority of the shares of our common stock entitled to vote in any election of directors can elect all of the directors standing for election.

No Preemptive or Similar Rights

Our common stock is not entitled to preemptive rights and is not subject to conversion, redemption or sinking fund provisions. The rights, preferences, and privileges of the holders of our common stock are subject to, and may be adversely affected by, the rights of the holders of any series of our preferred stock that we may designate and issue in the future.

Liquidation Rights

In the event of our liquidation, dissolution or winding-up, upon the completion of the distributions required with respect to any series of preferred stock that may then be outstanding, or remaining assets legally available for distribution to stockholders shall be distributed on an equal priority, pro rata basis to the holders of common stock.

Preferred Stock

All currently outstanding shares of our preferred stock will be converted to common stock immediately upon the closing of this offering.

Following the closing of this offering, our board of directors will have the authority, without further action by our stockholders, to issue up to 10,000,000 shares of preferred stock in one or more series, to establish from time to time the number of shares to be included in each such series, to fix the rights, preferences, and privileges of the shares of each wholly unissued series and any qualifications, limitations or restrictions thereon, and to increase or decrease the number of shares of any such series, but not below the number of shares of such series then outstanding.

Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of our common stock. The purpose of authorizing our board of directors to issue preferred stock and determine its rights and preferences is to eliminate delays associated with a stockholder vote on specific issuances. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring, or preventing a change in control and may adversely affect the market price of our common stock and the voting and other rights of the holders of our common stock. It is not possible to state the actual effect of the issuance of any shares of preferred stock on the rights of holders of our common stock until our board of directors determines the specific rights attached to that preferred stock.

We have no present plans to issue any shares of preferred stock.

Options

As of June 30, 2020, options to purchase an aggregate of 3,490,688 shares of our common stock were outstanding under our 2000 and 2010 Plans and 2020 Stock Plan at a weighted-average exercise price of $1.69 per share. We granted options to purchase an aggregate of 834,871 shares of our common stock after June 30, 2020 under our 2020 Stock Plan at a weighted-average exercise price of $2.19 per share. For additional information regarding the terms of our Plans, see “Executive Compensation—Employee Benefit Plans.”

Warrants

As of June 30, 2020, we had no warrants outstanding.

Registration Rights

After the closing of this offering, certain holders of shares of our common stock, including those shares of our common stock that will be issued upon conversion of our preferred stock in connection with this offering, will be entitled to certain rights with respect to registration of such shares under the Securities Act pursuant to the terms of an investor rights agreement. These shares are collectively referred to herein as registrable securities.

The investor rights agreement provides the holders of registrable securities with demand, piggyback and S-3 registration rights as described more fully below. As of June 30, 2020, after giving effect to the conversion of all outstanding shares of preferred stock into shares of our common stock in connection with the closing of this offering (assuming a conversion ratio equal to approximately 1.0120 shares of common stock for each share of Series G-1 preferred stock based on an assumed initial public offering price of $15.00 per share, the midpoint of the price range set forth on the cover page of this prospectus), there would have been an aggregate of 17,856,229 registrable securities that were entitled to these demand registration rights, an aggregate of 18,717,681 registrable securities that were entitled to these piggyback registration rights, and an aggregate of 17,856,229 registrable securities that were entitled to these S-3 registration rights.

Demand Registration Rights

At any time beginning six months after the effective date of the registration statement of which this prospectus forms a part, the holders of at least a majority of the registrable securities then outstanding have the right to make up to two demands that we file a registration statement under the Securities Act covering at least 25% of the registrable securities then outstanding, subject to specified exceptions.

Piggyback Registration Rights

If we register any securities for public sale, the holders of our registrable securities then outstanding will each be entitled to notice of the registration and will have the right to include their shares in the registration statement.

The underwriters of any underwritten offering will have the right to limit the number of shares having registration rights to be included in the registration statement, but not below 20% of the total number of securities included in such registration.

Registration on Form S-3

If we are eligible to file a registration statement on Form S-3, the holders of at least 25% our registrable securities have the right to demand that we file registration statements on Form S-3; provided, that the aggregate amount of securities to be sold under the registration statement is at least $1.0 million. We are not obligated to effect a demand for registration on Form S-3 by holders of our registrable securities more than once during any 12-month period. The right to have such shares registered on Form S-3 is further subject to other specified conditions and limitations.

Expenses of Registration

We will pay all expenses relating to any demand, piggyback, or Form S-3 registration, other than underwriting discounts and commissions, subject to specified conditions and limitations.

Termination of Registration Rights

The registration rights will terminate three years following the closing of this offering and, with respect to any particular stockholder, when such stockholder is able to sell all of its shares during a 90-day period pursuant to Rule 144 under the Securities Act or another similar exemption.

Anti-Takeover Provisions

Anti-Takeover Statute

We are subject to Section 203 of the Delaware General Corporation Law, which generally prohibits a publicly held Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years after the date that such stockholder became an interested stockholder, with the following exceptions:

- before such date, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;

- upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction began, excluding for purposes of determining the voting stock outstanding, but not the outstanding voting stock owned by the interested stockholder, those shares owned (1) by persons who are directors and also officers and (2) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or

- on or after such date, the business combination is approved by the board of directors and authorized at an annual or special meeting of the stockholders, and not by written consent, by the affirmative vote of at least 66 2⁄3% of the outstanding voting stock that is not owned by the interested stockholder.

In general, Section 203 defines a "business combination" to include the following:

- any merger or consolidation involving the corporation and the interested stockholder;

- any sale, transfer, pledge, or other disposition involving the interested stockholder of 10% or more of the assets of the corporation;

- subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;

- subject to certain exceptions, any transaction involving the corporation that has the effect of increasing the proportionate share of the stock or any class or series of the corporation beneficially owned by the interested stockholder; or

- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges, or other financial benefits by or through the corporation.

In general, Section 203 defines an "interested stockholder" as an entity (other than the corporation and any direct or indirect majority-owned subsidiary of the corporation) or person who, together with the person's affiliates and associates, beneficially owns, or within three years prior to the time of determination of interested stockholder status did own, 15% or more of the outstanding voting stock of the corporation.

Anti-Takeover Effects of Certain Provisions of our Certificate of Incorporation and Bylaws to be in Effect Upon the Closing of this Offering

Our certificate of incorporation will provide for our board of directors to be divided into three classes with staggered three-year terms. Only one class of directors will be elected at each annual meeting of our stockholders, with the other classes continuing for the remainder of their respective three-year terms. Because our stockholders do not have cumulative voting rights, stockholders holding a majority of the shares of our common stock outstanding will be able to elect all of our directors. Our certificate of incorporation and bylaws will also provide that directors may be removed by the stockholders only for cause upon the vote of the holders of a majority of our outstanding common stock. Furthermore, the authorized number of directors may be changed only by resolution of our board of directors, and vacancies and newly created directorships on our board of directors may, except as otherwise required by law or determined by our board, only be filled by a majority vote of the directors then serving on the board, even though less than a quorum.

Our certificate of incorporation and bylaws will also provide that all stockholder actions must be effected at a duly called meeting of stockholders and will eliminate the right of stockholders to act by written consent without a meeting. Our bylaws will also provide that only our chairman of the board, chief executive officer or our board of directors pursuant to a resolution adopted by a majority of the total number of authorized directors may call a special meeting of stockholders.

Our bylaws will also provide that stockholders seeking to present proposals before our annual meeting of stockholders or to nominate candidates for election as directors at a meeting of stockholders must provide timely advance notice in writing, and, subject to applicable law, will specify requirements as to the form and content of a stockholder's notice.

Our certificate of incorporation and bylaws will provide that the stockholders cannot amend many of the provisions described above except by a vote of the holders of 66 2⁄3% or more of our outstanding common stock.

The combination of these provisions will make it more difficult for our existing stockholders to replace our board of directors as well as for another party to obtain control of us by replacing our board of directors. Since our board of directors has the power to retain and discharge our officers, these provisions could also make it more difficult for existing stockholders or another party to effect a change in management. In addition, the authorization of undesignated preferred stock makes it possible for our board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change our control.

These provisions are intended to enhance the likelihood of continued stability in the composition of our board of directors and its policies and to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to reduce our vulnerability to hostile takeovers and to discourage certain tactics that may be used in proxy fights. However, such provisions could have the effect of discouraging others from making tender offers for our shares and may have the effect of delaying changes in our control or management. As a consequence, these provisions may also inhibit fluctuations in the market price of our stock that could result from actual or rumored takeover attempts. We believe that the benefits of these provisions, including increased protection of our potential ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure us, outweigh the disadvantages of discouraging takeover proposals, because negotiation of takeover proposals could result in an improvement of their terms.

Choice of Forum

Our amended and restated certificate of incorporation to be in effect upon the closing of this offering will provide that the Court of Chancery of the State of Delaware will be the exclusive forum for the following types of actions or proceedings under Delaware statutory or common law: any derivative action or proceeding brought on our behalf; any action asserting a breach of fiduciary duty owed by any of our directors, officers, employees, or stockholders to us or our stockholders; any action asserting a claim against us arising pursuant to the Delaware General Corporation Law, our amended and restated certificate of incorporation or our bylaws; or any action asserting a claim against us that is governed by the internal affairs doctrine. The provisions would not apply to suits brought to enforce a duty or liability created by the Exchange Act or any claim for which the federal district courts of the United States have exclusive jurisdiction. In addition, our amended and restated certificate of incorporation to be in effect upon the closing of this offering will further provide that the federal district courts of the United States will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act. See "Risk Factors—Risks Related to This Offering and Ownership of Our Common Stock—Our amended and restated certificate of incorporation that will be in effect at the closing of this offering will provide that the Court of Chancery of the State of Delaware and, to the extent enforceable, the federal district courts of the United States will be the exclusive forums for substantially all disputes between us and our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers, or employees."

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company, LLC. The transfer agent's address is 6201 15th Avenue, Brooklyn, New York 11219 and the telephone number is (800) 937-5449.

Listing

We have applied to list our common stock on the Nasdaq Global Select Market under the trading symbol "LUNG."

SHARES ELIGIBLE FOR FUTURE SALE

Immediately prior to this offering, no public market for our common stock existed, and a liquid trading market for our common stock may not develop or be sustained after this offering. Future sales of substantial amounts of our common stock in the public market could adversely affect prevailing market prices of our common stock from time to time and could impair our ability to raise equity capital in the future. Furthermore, because only a limited number of shares of our common stock will be available for sale shortly after this offering due to certain contractual and legal restrictions on resale described below, sales of substantial amounts of our common stock in the public market after such restrictions lapse, or the anticipation of such sales, could adversely affect the prevailing market price of our common stock and our ability to raise equity capital in the future.

Based upon the number of shares outstanding as of June 30, 2020, upon the closing of this offering, we will have outstanding an aggregate of 29,281,961 shares of common stock (or 30,281,961 shares if the underwriters exercise in full their option to purchase additional shares of our common stock). This includes shares of common stock that we are selling in this offering, which shares may be resold in the public market immediately following this offering, and assumes no exercise of outstanding options or warrants, after giving effect to (i) the conversion of all outstanding shares of our preferred stock into 17,856,229 shares of common stock immediately upon the closing of this offering (assuming a conversion ratio equal to approximately 1.0120 shares of common stock for each share of Series G-1 preferred stock based on an assumed initial public offering price of $15.00 per share, the midpoint of the price range set forth on the cover page of this prospectus) and (ii) the automatic conversion of $33.0 million aggregate principal amount of the 2020 Notes plus accrued interest thereon into 2,650,773 shares of our common stock in connection with the closing of this offering based on the assumed initial public offering price of $15.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and an assumed closing date of this offering and conversion date of October 2, 2020. All of the shares sold in this offering will be freely tradable without restrictions or further registration under the Securities Act, unless held by our affiliates, as that term is defined under Rule 144 under the Securities Act, whose sales would be subject to the Rule 144 resale restrictions described below, or subject to lock-up agreements. The remaining shares of common stock outstanding upon the closing of this offering are restricted securities as defined in Rule 144. Restricted securities may be sold in the U.S. public market only if registered under the Securities Act or if they qualify for an exemption from registration, including by reason of Rule 144 or Rule 701 under the Securities Act, which rules are summarized below. Subject to the lock-up arrangements described below and the provisions of Rule 144, these restricted securities will be available for sale in the public market after the date of this prospectus.

As of June 30, 2020, of the 3,490,688 shares of common stock issuable upon exercise of options outstanding, approximately 3,490,688 shares will be “restricted securities,” as that term is defined in Rule 144 under the Securities Act. All of these restricted securities will be subject to the 180-day lock-up period described below. These restricted securities are eligible for public sale only if they are registered under the Securities Act or if they qualify for an exemption from registration under Rule 144 or Rule 701 under the Securities Act, which are summarized below, or any other exemption and, if subject to lock-up agreements, may only be sold after the expiration of the 180-day lock-up period.

We may issue shares of common stock from time to time as consideration for future acquisitions, investments or other corporate purposes. In the event that any such acquisition, investment or other transaction is significant, the number of shares of common stock that we may issue may in turn be significant. We may also grant registration rights covering those shares of common stock issued in connection with any such acquisition and investment.

In addition, the shares of common stock reserved for future issuance under our 2020 Plan will become eligible for sale in the public market to the extent permitted by the provisions of various vesting schedules, the lock-up agreements, a registration statement under the Securities Act, or an exemption from registration, including Rule 144 and Rule 701.

Rule 144

In general, persons who have beneficially owned restricted shares of our common stock for at least six months, and any affiliate of us who owns either restricted or unrestricted shares of our common stock, are entitled to sell their securities without registration with the SEC under an exemption from registration provided by Rule 144 under the Securities Act.

Non-Affiliates

Any person who is not deemed to have been one of our affiliates at the time of, or at any time during the three months preceding, a sale may sell an unlimited number of restricted securities under Rule 144 if:

- the restricted securities have been held for at least six months, including the holding period of any prior owner other than one of our affiliates;
- we have been subject to the Exchange Act periodic reporting requirements for at least 90 days before the sale; and
- we are current in our Exchange Act reporting at the time of sale.

Any person who is not deemed to have been an affiliate of ours at the time of, or at any time during the three months preceding, a sale and has held the restricted securities for at least one year, including the holding period of any prior owner other than one of our affiliates, will be entitled to resell an unlimited number of restricted securities effective immediately upon the closing of this offering without regard to the length of time we have been subject to Exchange Act periodic reporting or whether we are current in our Exchange Act reporting. Non-affiliate resales are not subject to the manner of sale, volume limitation or notice filing provisions of Rule 144.

Affiliates

Persons seeking to sell restricted securities who are our affiliates at the time of, or any time during the three months preceding, a sale, would be subject to the restrictions described above. Sales of restricted or unrestricted shares of our common stock by affiliates are also subject to additional restrictions, by which such person would be required to comply with the manner of sale and notice provisions of Rule 144 and would be entitled to sell in “broker’s transactions” or certain “riskless principal transactions” or to market makers, within any three-month period only that number of securities that does not exceed the greater of either of the following:

- 1% of the number of shares of our common stock then outstanding, which will equal approximately 292,820 shares immediately after the closing of this offering based on the number of shares outstanding as of June 30, 2020; or
- the average weekly trading volume of our common stock on the Nasdaq Global Select Market during the four calendar weeks preceding the filing of a notice on Form 144 with respect to the sale.

Affiliate resales under Rule 144 are also subject to the availability of current public information about us. In addition, if the number of shares being sold under Rule 144 by an affiliate during any three-month period exceeds 5,000 shares or has an aggregate sale price in excess of $50,000, the seller must file a notice on Form 144 with the Securities and Exchange Commission (SEC) and Nasdaq Global Select Market concurrently with either the placing of a sale order with the broker or the execution directly with a market maker.

Rule 701

In general, under Rule 701 a person who purchased shares of our common stock pursuant to a written compensatory stock or option plan or contract before the effective date of a registration statement under the Securities Act and who is not deemed to have been one of our affiliates during the immediately preceding 90 days may sell these shares in reliance upon Rule 144, but without being required to comply with the notice, manner of sale or public information requirements or volume limitation provisions of Rule 144. Rule 701 also permits affiliates to sell their Rule 701 shares under Rule 144 without complying with the holding period requirements of Rule 144. All holders of Rule 701 shares, however, are required to wait until 90 days after the date of this prospectus before selling such shares pursuant to Rule 701. However, substantially all Rule 701 shares are subject to lock-up agreements as described below and under “Underwriting” included elsewhere in this prospectus and will become eligible for sale upon the expiration of the restrictions set forth in those agreements.

The SEC has indicated that Rule 701 will apply to typical stock options granted by an issuer before it becomes subject to the reporting requirements of the Exchange Act, along with the shares acquired upon exercise of such options, including exercises after an issuer becomes subject to the reporting requirements of the Exchange Act.

Form S-8 Registration Statements

As soon as practicable after the closing of this offering, we intend to file with the SEC one or more registration statements on Form S-8 under the Securities Act to register the shares of our common stock that are issuable pursuant to our equity incentive plans, including pursuant to outstanding options. See “Executive Compensation—Employee Benefit Plans” for a description of our equity incentive plans. These registration statements will become effective immediately upon filing. Shares covered by these registration statements will then be eligible for sale in the public markets, subject to vesting restrictions, any applicable lock-up agreements described below and Rule 144 limitations applicable to affiliates.

Lock-Up Agreements

In connection with this offering, we, our directors and officers, and substantially all of our other existing security holders have agreed, subject to certain limited exceptions, not to offer, sell or transfer any of our common stock, stock options or other securities convertible into, exchangeable for, or exercisable for, our common stock for 180 days after the date of this prospectus without the prior written consent of BofA Securities, Inc. and Morgan Stanley & Co. LLC on behalf of the underwriters. See “Underwriting” for a more complete description of the lock-up agreements that we, our directors, executive officers, and substantially all of our other existing security holders will enter into in connection with this offering.

Any determination to release shares subject to the lock-up agreements would be based on a number of factors at the time of determination, including but not necessarily limited to the market price of the common stock, the liquidity of the trading market for the common stock, general market conditions, the number of shares proposed to be sold, contractual obligations to release certain shares subject to the lock-up agreements in the event any such shares are released, subject to certain specific limitations and thresholds, and the timing, purpose, and terms of the proposed sale.

In addition to the restrictions contained in the lock-up agreements described above, we have entered into agreements with certain of our security holders, including our investor rights agreement and agreements governing our equity awards, that contain market stand-off provisions imposing restrictions on the ability of such security holders to offer, sell or transfer our equity securities for a period of 180 days following the date of this prospectus.

Registration Rights

Upon the closing of this offering, the holders of 18,717,681 shares of our common stock, including shares issuable upon the conversion of outstanding shares of preferred stock (assuming a conversion ratio equal to approximately 1.0120 shares of common stock for each share of Series G-1 preferred stock based on an assumed initial public offering price of $15.00 per share, the midpoint of the price range set forth on the cover page of this prospectus), or their transferees, subject to any lock-up agreements they have entered into, will be entitled to specified rights with respect to the registration of the offer and sale of common stock issuable upon conversion of such shares of common stock under the Securities Act. Registration of the offer and sale of these shares under the Securities Act would result in the shares becoming freely tradable without restriction under the Securities Act immediately upon the effectiveness of the registration. See “Description of Capital Stock—Registration Rights” for additional information.

MATERIAL U.S. FEDERAL INCOME TAX CONSIDERATIONS FOR NON-U.S. HOLDERS

The following is a general discussion of the material U.S. federal income tax consequences of the acquisition, ownership, and disposition of our common stock by "Non-U.S. Holders" (as defined below). This discussion is for general information purposes only and does not consider all aspects of U.S. federal income taxation that may be relevant to particular Non-U.S. Holders in light of their individual circumstances or to certain types of Non-U.S. Holders subject to special tax rules, including partnerships or other entities or arrangements treated as pass-through or disregarded entities for U.S. federal income tax purposes, banks, financial institutions or other financial services entities, broker-dealers, insurance companies, tax-exempt organizations, governmental organizations, pension plans, real estate investment trusts, controlled foreign corporations, passive foreign investment companies, regulated investment companies, corporations that accumulate earnings to avoid U.S. federal income tax, persons who use or are required to use mark-to-market accounting, persons that hold more than 5% of our outstanding common stock, directly or indirectly, during the applicable testing period, persons that are "qualified foreign pension funds" as defined in Section 897(1)(2) of the Code and entities all of the interests of which are held by qualified foreign pension funds, persons that hold our shares as part of a "straddle," a "hedge," a "conversion transaction," "synthetic security," integrated investment, or other risk reduction strategy, certain U.S. expatriates and former citizens or permanent residents of the United States, persons deemed to sell our common stock under the constructive sale provisions of the Code, persons who hold or receive shares of our common stock pursuant to the exercise of an employee stock option or otherwise as compensation, or investors in pass-through entities (or entities that are treated as disregarded entities for U.S. federal income tax purposes). In addition, this discussion does not address the potential application of the gift or estate tax, alternative minimum tax, Medicare contribution tax on net investment income, or any tax considerations that may apply to Non-U.S. Holders under state, local or non-U.S. tax laws, and any other U.S. federal tax laws. Such Non-U.S. Holders are urged to consult their own tax advisors to determine the U.S. federal, state, local and other tax considerations that may be relevant to them.

This discussion is based on the Code and applicable Treasury regulations promulgated thereunder (Treasury Regulations) rulings, administrative pronouncements, and judicial decisions that are issued and available as of the date of this registration statement, all of which are subject to change or differing interpretations at any time with possible retroactive effect. We have not sought, and will not seek, any ruling from the Internal Revenue Service (IRS) with respect to the tax consequences discussed herein, and there can be no assurance that the IRS will not take a position contrary to the tax consequences discussed below or that any position taken by the IRS would not be sustained. This discussion is limited to a Non-U.S. Holder who will hold our common stock as a capital asset within the meaning of Section 1221 of the Code (generally, property held for investment). For purposes of this discussion, the term "Non-U.S. Holder" means a beneficial owner of our common stock that is not a partnership (or entity or arrangement treated as a partnership for U.S. federal income tax purposes) and is not, for U.S. federal income tax purposes, any of the following:

- an individual who is a citizen or resident of the United States;
- a corporation (or other entity treated as a corporation) created or organized in the United States or under the laws of the United States or of any state thereof or the District of Columbia;
- an estate, the income of which is subject to U.S. federal income tax regardless of its source; or
- a trust if (1) a court within the United States can exercise primary supervision over the trust's administration and one or more U.S. persons 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.

If a partnership (or entity or arrangement treated as a partnership for U.S. federal income tax purposes) is a beneficial owner of our common stock, the tax treatment of such partnership and a partner in such partnership generally will depend upon the status of the partner and the activities of the partnership. If you are a partner of a partnership holding our shares, you should consult your tax advisor regarding the tax consequences of the purchase, ownership, and disposition of our common stock.

THIS SUMMARY IS NOT INTENDED TO BE TAX ADVICE. PROSPECTIVE INVESTORS SHOULD CONSULT THEIR TAX ADVISORS REGARDING THE PARTICULAR U.S. FEDERAL INCOME TAX CONSEQUENCES TO THEM OF ACQUIRING, OWNING, AND DISPOSING OF OUR COMMON STOCK, AS WELL AS ANY TAX CONSEQUENCES ARISING UNDER ANY STATE, LOCAL OR FOREIGN TAX LAWS AND ANY OTHER U.S. FEDERAL TAX LAWS.

Distributions on Our Common Stock

In general, subject to the discussion below under the headings "Information Reporting and Backup Withholding" and "Foreign Accounts," distributions, if any, paid on our common stock to a Non-U.S. Holder (to the extent paid out of our current or accumulated earnings and profits, as determined under U.S. federal income tax principles) will constitute dividends and be subject to U.S. withholding tax at a rate equal to 30% of the gross amount of the dividend, or a lower rate prescribed by an applicable income tax treaty, unless the dividends are effectively connected with a trade or business carried on by the Non-U.S. Holder within the United States. Any distribution not constituting a dividend (because such distribution exceeds our current and accumulated earnings and profits) will be treated first as reducing the Non-U.S. Holder's basis in its shares of common stock, but not below zero, and to the extent it exceeds the Non-U.S. Holder's basis, as capital gain from the sale or exchange of such stock (see "Gain on Sale, Exchange or Other Disposition of Our Common Stock" below).

A Non-U.S. Holder who claims the benefit of an applicable income tax treaty generally will be required to satisfy certain certification and other requirements prior to the distribution date. Such Non-U.S. Holders must generally provide us or our paying agent, as applicable, with a properly executed IRS Form W-8BEN or IRS Form W-8BEN-E (or other appropriate form) claiming an exemption from or reduction in withholding under an applicable income tax treaty. Such certificate must be provided before the payment of dividends and must be updated periodically. If tax is withheld in an amount in excess of the amount applicable under an income tax treaty, a refund of the excess amount may generally be obtained by a Non-U.S. Holder by timely filing an appropriate claim for refund with the IRS. Non-U.S. Holders should consult their tax advisors regarding their entitlement to benefits under an applicable income tax treaty.

Dividends that are effectively connected with a Non-U.S. Holder's conduct of a U.S. trade or business (and, if required by an applicable income tax treaty, attributable to a U.S. permanent establishment or fixed base of the Non-U.S. Holder) generally will not be subject to U.S. federal withholding tax if the Non-U.S. Holder files the required forms, including IRS Form W-8ECI with us or our paying agent, as applicable, but instead generally will be subject to U.S. federal income tax on a net income basis at regular rates in the same manner as if the Non-U.S. Holder were a resident of the United States. A corporate Non-U.S. Holder that receives effectively connected dividends may be subject to an additional branch profits tax at a rate of 30%, or a lower rate prescribed by an applicable income tax treaty.

Gain on Sale, Exchange or Other Disposition of Our Common Stock

In general, subject to the discussion below under the headings "Information Reporting and Backup Withholding" and "Foreign Accounts," a Non-U.S. Holder will not be subject to U.S. federal income tax or withholding tax on any gain realized upon such Non-U.S. Holder's sale, exchange or other disposition of shares of our common stock unless: (1) the gain is effectively connected with a trade or business carried on by the Non-U.S. Holder within the United States (and, if required by an applicable income tax treaty, attributable to a U.S. permanent establishment or fixed base of the Non-U.S. Holder); (2) the Non-U.S. Holder is an individual who is present in the United States for 183 days or more in the taxable year of disposition and certain other conditions are met; or (3) we are or have been a "United States real property holding corporation" (USRPHC) for U.S. federal income tax purposes at any time during the shorter of the five-year period ending on the date of disposition or the period that the Non-U.S. Holder held our common stock, and, in the case where shares of our common stock are regularly traded on an established securities market, the Non-U.S. Holder owns, or is treated as owning, more than 5% of our common stock at any time during the foregoing period.

Net gain realized by a Non-U.S. Holder described in clause (1) above generally will be subject to U.S. federal income tax in the same manner as if the Non-U.S. Holder were a resident of the United States. Any gains of a corporate Non-U.S. Holder described in clause (1) above may also 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.

Gain realized by an individual Non-U.S. Holder described in clause (2) above will be subject to a flat 30% tax (or such lower rate as may be specified by an applicable income tax treaty), which gain may be offset by U.S. source capital losses, even though the individual is not considered a resident of the United States, provided that the Non-U.S. Holder has timely filed U.S. federal income tax returns with respect to such losses.

For purposes of clause (3) above, a corporation is a USRPHC if the fair market value of its United States real property interests equals or exceeds 50% of the sum of the fair market value of its worldwide real property interests plus any other assets used or held for use in a trade or business. Although there can be no assurance, we believe that we are not, and we do not anticipate that we will become, a USRPHC. Prospective investors are encouraged to consult their own tax advisors regarding the possible consequences to them if we are, or were to become, a USRPHC.

Information Reporting and Backup Withholding

Generally, we must report annually to the IRS and to each Non-U.S. Holder the amount of dividends paid, the name and address of the recipient, and the amount, if any, of tax withheld. These information reporting requirements apply even if withholding was not required because the dividends were effectively connected with the Non-U.S. Holder's conduct of a trade or business within the United States or withholding was reduced by an applicable income tax treaty. Under applicable income tax treaties or other agreements, the IRS may make its reports available to the tax authorities in the country in which a Non-U.S. Holder is resident or organized.

Dividends paid to a Non-U.S. Holder that is not an exempt recipient generally will be subject to backup withholding, currently at a rate of 24%, unless the Non-U.S. Holder certifies to the payor as to its foreign status, which certification may generally be made on an applicable IRS Form W-8. Notwithstanding the foregoing, backup withholding may apply if we have actual knowledge, or reason to know, that the Non-U.S. Holder is a U.S. person (as defined in the Code) that is not an exempt recipient.

Proceeds from the sale or other disposition of common stock by a Non-U.S. Holder effected by or through a U.S. office of a broker will generally be subject to information reporting and backup withholding, currently at a rate of 24%, unless the Non-U.S. Holder certifies to the withholding agent under penalties of perjury as to, among other things, its name, address, and status as a Non-U.S. Holder (which certification may generally be made on an applicable IRS Form W-8) or otherwise establishes an exemption. Payment of disposition proceeds effected outside the United States by or through a non-U.S. office of a non-U.S. broker generally will not be subject to information reporting or backup withholding if the payment is not received in the United States. Information reporting, but generally not backup withholding, will apply to such a payment if the broker has certain connections with the United States unless the broker has documentary evidence in its records that the beneficial owner thereof is a Non-U.S. Holder and specified conditions are met or an exemption is otherwise established.

Backup withholding is not an additional tax. Any amount withheld under the backup withholding rules from a payment to a Non-U.S. Holder that results in an overpayment of taxes generally will be refunded, or credited against the Non-U.S. Holder's U.S. federal income tax liability, if any, provided that the required information is timely furnished to the IRS.

Foreign Accounts

Sections 1471 through 1474 of the Code regarding the Foreign Account Tax Compliance Act (commonly referred to as FATCA) generally impose a 30% withholding tax on dividends on, and, subject to the discussion of certain proposed Treasury Regulations below, gross proceeds from the sale or disposition of, our common stock if paid to a foreign entity unless (1) if the foreign entity is a "foreign financial institution," (as specifically defined by applicable rules) the foreign entity undertakes certain due diligence, reporting, withholding, and certification obligations, (2) if the foreign entity is not a "foreign financial institution," the foreign entity identifies certain U.S. holders of debt or equity interests in such foreign entity, or (3) the foreign entity is otherwise exempt from FATCA. The U.S. Treasury released proposed Treasury Regulations which, if finalized in their present form, would eliminate the federal withholding tax of 30% applicable to the gross proceeds of a sale or other disposition of our common stock. In its preamble to such proposed Treasury Regulations, the U.S. Treasury stated that taxpayers may generally rely on the proposed regulations until final regulations are issued.

An intergovernmental agreement between the United States and an applicable foreign country may modify the requirements described in this section. Under certain circumstances, a Non-U.S. Holder may be eligible for refunds or credits of the tax. Non-U.S. Holders should consult their own tax advisors regarding the possible implications of FATCA on their investment in our common stock.

EACH PROSPECTIVE INVESTOR SHOULD CONSULT ITS OWN TAX ADVISOR REGARDING THE TAX CONSEQUENCES OF PURCHASING, HOLDING AND DISPOSING OF OUR COMMON STOCK, INCLUDING THE CONSEQUENCES OF ANY RECENT OR PROPOSED CHANGE IN APPLICABLE LAW.

UNDERWRITING

BofA Securities, Inc. and Morgan Stanley & Co. LLC are acting as representatives of each of the underwriters named below. Subject to the terms and conditions set forth in an underwriting agreement among us and the underwriters, we have agreed to sell to the underwriters, and each of the underwriters has agreed, severally and not jointly, to purchase from us, the number of shares of common stock set forth opposite its name below.

Underwriter	Number of Shares
BofA Securities, Inc.	
Morgan Stanley & Co. LLC	
Stifel, Nicolaus & Company, Incorporated	
Wells Fargo Securities, LLC	
Canaccord Genuity LLC	
Total	6,666,667

Subject to the terms and conditions set forth in the underwriting agreement, the underwriters have agreed, severally and not jointly, to purchase all of the shares sold under the underwriting agreement if any of these shares are purchased. If an underwriter defaults, the underwriting agreement provides that the purchase commitments of the nondefaulting underwriters may be increased or the underwriting agreement may be terminated.

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act, or to contribute to payments the underwriters may be required to make in respect of those liabilities.

The underwriters are offering the shares, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel, including the validity of the shares, and other conditions contained in the underwriting agreement, such as the receipt by the underwriters of officer's certificates and legal opinions. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

Commissions and Discounts

The representatives have advised us that the underwriters propose initially to offer the shares to the public at the public offering price set forth on the cover page of this prospectus and to dealers at that price less a concession not in excess of $ per share. After the initial offering, the public offering price, concession or any other term of the offering may be changed.

The following table shows the public offering price, underwriting discount and proceeds before expenses to us. The information assumes either no exercise or full exercise by the underwriters of their option to purchase additional shares.

	Per Share	Without Option	With Option
Public offering price	$	$	$
Underwriting discount	$	$	$
Proceeds, before expenses, to us	$	$	$

The expenses of the offering, not including the underwriting discount, are estimated at $5,000,000 and are payable by us. We have also agreed to reimburse the underwriters for certain of their expenses relating to clearance of this offering with the Financial Industry Regulatory Authority in an amount up to $45,000.

Option to Purchase Additional Shares

We have granted an option to the underwriters, exercisable for 30 days after the date of this prospectus, to purchase up to 1,000,000 additional shares at the public offering price, less the underwriting discount. If the underwriters exercise this option, each will be obligated, subject to conditions contained in the underwriting agreement, to purchase a number of additional shares proportionate to that underwriter's initial amount reflected in the above table.

No Sales of Similar Securities

We, our executive officers and directors and substantially all of our other existing security holders have agreed not to sell or transfer any common stock or securities convertible into, exchangeable for, exercisable for or repayable with common stock, for 180 days after the date of this prospectus without first obtaining the written consent of BofA Securities, Inc. and Morgan Stanley & Co. LLC. Specifically, we and these other persons have agreed, with certain limited exceptions, not to:

- directly or indirectly, offer, pledge, sell or contract to sell any common stock, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase or otherwise transfer or dispose of any shares of common stock or any securities convertible into or exercisable or exchangeable for common stock,

- request or demand that we file a registration statement or make a confidential submission related to any of the foregoing,

- enter into any swap or other agreement or transaction that transfers, in whole or in part, directly or indirectly, the economic consequence of ownership of any common stock whether any such swap or transaction is to be settled by delivery of shares or other securities, in cash or otherwise, or

- publicly disclose the intention to do any of the foregoing.

The restrictions described in the immediately preceding paragraph contained in the lock-up agreements between the representatives on behalf of underwriters and our executive officers, directors and substantially all of our other existing security holders are subject to certain exceptions, including with respect to:

- transfer of shares as a bona fide gift or gifts or for bona fide estate planning purposes, provided that a lock-up agreement is signed by the transferee for the balance of the restricted period, shall not involve a disposition for value and no filing under Section 16 of the Exchange Act or other public announcement shall be required or voluntarily made during the restricted period;

- transfer of shares to immediate family or any trust or other entity for the direct or indirect benefit of the person and/or the immediate family of the person or if to a trust, to any beneficiary of the trust or to the estate of a beneficiary of such trust, provided that a lock-up agreement is signed by the transferee for the balance of the restricted period, shall not involve a disposition for value and no filing under Section 16 of the Exchange Act or other public announcement shall be required or voluntarily made during the restricted period;

- transfer of shares as a distribution to limited partners, general partners, limited liability company members, stockholders or other equity holders, provided that a lock-up agreement is signed by the transferee for the balance of the restricted period, shall not involve a disposition for value and no filing under Section 16 of the Exchange Act or other public announcement shall be required or voluntarily made during the restricted period;

- transfer of shares to affiliates, including any direct or indirect subsidiary or to any investment fund or other entity controlled or managed by the person, provided that a lock-up agreement is signed by the transferee for the balance of the restricted period, shall not involve a disposition for value and no filing under Section 16 of the Exchange Act or other public announcement shall be required or voluntarily made during the restricted period;

- transfer of shares to underwriters in the offering;
- transfer of shares to us upon exercise of any right in respect of any option granted under any equity incentive plan described in this prospectus or any warrant to purchase our securities described in this prospectus (including the surrender of shares to us in "net" or "cashless" exercise of any option or warrant), provided that the shares received upon exercise continue to be subject to the lock-up agreement, if required, any public report or filing under Section 16 of the Exchange Act shall clearly indicate in the footnotes thereto that such transfer is being made pursuant to the foregoing circumstances, that no shares were sold by the reporting person and the shares received upon exercise of the stock option are subject to the lock-up agreement and no other public announcement, report or filing shall be required or voluntarily made during the restricted period;
- transfer of shares to us in connection with the repurchase of shares or other securities from an employee to us upon termination of employment of such employee to the extent required by such employee's employment agreement or other contractual agreement with us, provided that any filing required under Section 16 of the Exchange Act shall clearly indicate in the footnotes thereto that such transfer is being made pursuant to the foregoing circumstances and no other public announcement, report or filing shall be required or voluntarily made during the restricted period;
- conversion of shares of preferred stock into shares of common stock in connection with, and disclosed in this prospectus for, the offering, provided that any shares of common stock received upon such conversion remain subject to the terms of the lock-up agreement and if required any public report or filing under Section 16 of the Exchange Act shall clearly indicate in the footnotes thereto that such transfer is being made pursuant to the foregoing circumstances;
- transfer of shares pursuant to a bona fide third-party tender offer, merger, consolidation or other similar transaction approved by our board of directors and made to all stockholders involving a change of control, provided that "change of control" means the consummation of any bona fide third-party tender offer, merger, consolidation or other similar transaction resulting in any person or group of persons becoming the beneficial owner of more than 50% of total voting power of our voting stock and provided further that if such transaction is not completed or such shares are not transferred in such transaction, the shares shall remain subject to the lock-up agreement;
- transfer of shares by order of a court of competent jurisdiction or in connection with a qualified domestic order or divorce settlement, provided that the shares received by the transferee continue to be subject to the lock-up agreement, any filing required under Section 16 of the Exchange Act shall clearly indicate in the footnotes thereto that such transfer is being made pursuant to the foregoing circumstances and no other public announcement, report or filing shall be required or voluntarily made during the restricted period;
- transfer of shares by will or intestate succession, including to the transferee's nominee or custodian, provided that the shares received by the transferee continue to be subject to the lock-up agreement, any filing required under Section 16 of the Exchange Act shall clearly indicate in the footnotes thereto that such transfer is being made pursuant to the foregoing circumstances and no other public announcement, report or filing shall be required or voluntarily made during the restricted period; and
- transfer of shares purchased in the offering or acquired in open market transactions after the completion of this offering, provided that no filing under Section 16 of the Exchange Act or other public announcement, report or filing shall be required or voluntarily made during the restricted period.

The lock-up agreement does not prevent the establishment of a 10b5-1 trading plan on behalf of a shareholder, officer or director of the company that complies with Rule 10b5-1 under the Exchange Act, provided that such plan does not provide for the sale of shares during the restricted period. The establishment or amendment of a 10b5-1 trading plan shall only be permitted if (i) the establishment of such plan is not required to be reported in any public report or filing with the SEC or otherwise and (ii) no other public announcement, report or filing shall be required or voluntarily made during the restricted period.

The restrictions described above do not apply to us with respect to certain transactions, including in connection with:

- the sale of our common stock to the underwriters pursuant to the underwriting agreement;
- the issuance of any shares of common stock by us upon the exercise of an option or warrant or the conversion of a security outstanding on the date of the underwriting agreement and referred to in this prospectus;
- the issuance of any shares of common stock or granting of options to purchase common stock pursuant to our existing employee benefit plans referred to in this prospectus;
- the issuance of any shares of common stock pursuant to any non-employee director stock plan or dividend reinvestment plan referred to in this prospectus;
- our filing of a registration statement on Form S-8 with respect to the registration of securities to be offered under any of our employee benefit or equity incentive plans referred to in this prospectus; and
- the sale or issuance of or entry into an agreement to sell or issue shares of common stock or other securities issued in connection with any (1) merger, (2) acquisition of securities, businesses, properties or other assets, (3) joint venture or (4) strategic alliance or relationship; provided, that the aggregate number of shares of common stock or other securities issued pursuant to the foregoing shall not exceed 5.0% of the total number of issued and outstanding shares of common stock immediately following the issuance and sale of the securities upon the closing of this offering pursuant to the underwriting agreement; provided further that each recipient of any such shares of common stock or securities issued pursuant to the foregoing during the 180-day restricted period shall enter into a lock-up agreement for the restricted period and only if such recipient did not previously enter into such an agreement with the representatives.

These lock-up provisions apply to common stock and to securities convertible into or exchangeable or exercisable for or repayable with common stock. It also applies to common stock owned now or acquired later by the person executing the agreement or for which the person executing the agreement later acquires the power of disposition. BofA Securities, Inc. and Morgan Stanley & Co. LLC in their sole discretion, may release the common stock and other securities subject to the lock-up agreements described above in whole or in part at any time with or without notice.

Nasdaq Listing

We expect the shares to be approved for listing on the Nasdaq Global Select Market, subject to notice of issuance, under the symbol “LUNG.”

Before this offering, there has been no public market for our common stock. The initial public offering price will be determined through negotiations between us and the representatives. In addition to prevailing market conditions, the factors to be considered in determining the initial public offering price are:

- the valuation multiples of publicly traded companies that the representatives believe to be comparable to us,

- our financial information,

- the history of, and the prospects for, our company and the industry in which we compete,

- an assessment of our management, its past and present operations, and the prospects for, and timing of, our future revenues,

- the present state of our development, and
- the above factors in relation to market values and various valuation measures of other companies engaged in activities similar to ours.

An active trading market for the shares may not develop. It is also possible that after the offering the shares will not trade in the public market at or above the initial public offering price.

The underwriters do not expect to sell more than 5% of the shares in the aggregate to accounts over which they exercise discretionary authority.

Price Stabilization, Short Positions and Penalty Bids

Until the distribution of the shares is completed, SEC rules may limit underwriters and selling group members from bidding for and purchasing our common stock. However, the representatives may engage in transactions that stabilize the price of the common stock, such as bids or purchases to peg, fix or maintain that price.

In connection with the offering, the underwriters may purchase and sell our common stock in the open market. These transactions may include short sales, purchases on the open market to cover positions created by short sales and stabilizing transactions. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in the offering. "Covered" short sales are sales made in an amount not greater than the underwriters' option to purchase additional shares described above. The underwriters may close out any covered short position by either exercising their option to purchase additional shares or purchasing shares in the open market. In determining the source of shares to close out the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the option granted to them. "Naked" short sales are sales in excess of such option. The underwriters must close out any naked short position by purchasing shares in the open market. 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 our common stock in the open market after pricing that could adversely affect investors who purchase in the offering. Stabilizing transactions consist of various bids for or purchases of shares of common stock made by the underwriters in the open market prior to the completion of the offering.

The underwriters may also impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the representatives have repurchased shares sold by or for the account of such underwriter in stabilizing or short covering transactions.

Similar to other purchase transactions, the underwriters' purchases to cover the syndicate short sales may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of our common stock. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market. The underwriters may conduct these transactions on the Nasdaq Global Select Market, in the over-the-counter market or otherwise.

Neither we nor any of the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of our common stock. In addition, neither we nor any of the underwriters make any representation that the representatives will engage in these transactions or that these transactions, once commenced, will not be discontinued without notice.

Electronic Distribution

In connection with the offering, certain of the underwriters or securities dealers may distribute prospectuses by electronic means, such as e-mail.

Other Relationships

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 or instruments of ours or our affiliates. The underwriters and their affiliates may also make investment recommendations 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 or short positions in such securities and instruments.

Notice to Prospective Investors in the European Economic Area and the United Kingdom

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 initial 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 the company 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 the company 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 the representatives has been obtained to each such proposed offer or resale.

The company, the underwriters and their affiliates will rely upon the truth and accuracy of the foregoing representations, acknowledgments 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 United Kingdom, the Prospectus Regulation as it forms part of the United Kingdom's 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 the company and will not be responsible to anyone other than the company for providing the protections afforded to their clients nor for providing advice in relation to the offering.

Notice to Prospective Investors in the 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.

Notice to Prospective Investors in Switzerland

The shares may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange (SIX) or on any other stock exchange or regulated trading facility in Switzerland. This document has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this document nor any other offering or marketing material relating to the shares or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this document nor any other offering or marketing material relating to the offering, the company, the shares have been or will be filed with or approved by any Swiss regulatory authority. In particular, this document will not be filed with, and the offer of shares will not be supervised by, the Swiss Financial Market Supervisory Authority (FINMA), and the offer of shares has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes (CISA). The investor protection afforded to acquirers of interests in collective investment schemes under the CISA does not extend to acquirers of shares.

Notice to Prospective Investors in the Dubai International Financial Centre

This prospectus relates to an Exempt Offer in accordance with the Offered Securities Rules of the Dubai Financial Services Authority (DFSA). This prospectus is intended for distribution only to persons of a type specified in the Offered Securities Rules 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 nor taken steps to verify the information set forth herein and has no responsibility for the prospectus. The shares to which this prospectus relates may be illiquid or subject to restrictions on their resale. Prospective purchasers of the shares offered should conduct their own due diligence on the shares. If you do not understand the contents of this prospectus you should consult an authorized financial advisor.

Notice to Prospective Investors in Australia

No placement document, prospectus, product disclosure statement or other disclosure document has been lodged with the Australian Securities and Investments Commission (ASIC), in relation to the offering. This prospectus does not constitute a prospectus, product disclosure statement or other disclosure document under the Corporations Act 2001 (the Corporations Act), and does not purport to include the information required for a prospectus, product disclosure statement or other disclosure document under the Corporations Act.

Any offer in Australia of the shares may only be made to persons (the Exempt Investors) who are “sophisticated investors” (within the meaning of section 708(8) of the Corporations Act), “professional investors” (within the meaning of section 708(11) of the Corporations Act) or otherwise pursuant to one or more exemptions contained in section 708 of the Corporations Act so that it is lawful to offer the shares without disclosure to investors under Chapter 6D of the Corporations Act.

The shares applied for by Exempt Investors in Australia must not be offered for sale in Australia in the period of 12 months after the date of allotment under the offering, except in circumstances where disclosure to investors under Chapter 6D of the Corporations Act would not be required pursuant to an exemption under section 708 of the Corporations Act or otherwise or where the offer is pursuant to a disclosure document which complies with Chapter 6D of the Corporations Act. Any person acquiring shares must observe such Australian on-sale restrictions.

This prospectus contains general information only and does not take account of the investment objectives, financial situation or particular needs of any particular person. It does not contain any securities recommendations or financial product advice. Before making an investment decision, investors need to consider whether the information in this prospectus is appropriate to their needs, objectives and circumstances, and, if necessary, seek expert advice on those matters.

Notice to Prospective Investors in Hong Kong

The shares 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 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.

Notice to Prospective Investors in Japan

The shares have not been and will not be registered under the Financial Instruments and Exchange Law of Japan (Law No. 25 of 1948, as amended) and, accordingly, will not be offered or sold, directly or indirectly, in Japan, or for the benefit of any Japanese Person or to others for re-offering or resale, directly or indirectly, in Japan or to any Japanese Person, except in compliance with all applicable laws, regulations and ministerial guidelines promulgated by relevant Japanese governmental or regulatory authorities in effect at the relevant time. For the purposes of this paragraph, “Japanese Person” shall mean any person resident in Japan, including any corporation or other entity organized under the laws of Japan.

Notice to Prospective Investors in Singapore

This prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, the shares were not offered or sold or caused to be made the subject of an invitation for subscription or purchase and will not be offered or sold or caused to be made the subject of an invitation for subscription or purchase, and this prospectus or any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares, has not been circulated or distributed, nor will it be circulated or distributed, whether directly or indirectly, to any person in Singapore other than (i) to an institutional investor (as defined in Section 4A of the Securities and Futures Act (Chapter 289) of Singapore, as modified or amended from time to time (the SFA)) pursuant to Section 274 of the SFA, (ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A) of the SFA, 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 or securities-based derivatives contracts (each term as defined in Section 2(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 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; or

(d) as specified in Section 276(7) of the SFA.

Notice to Prospective Investors in Canada

The shares may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 *Prospectus Exemptions* or subsection 73.3(1) of the *Securities Act* (Ontario), and are permitted clients, as defined in National Instrument 31-103 *Registration Requirements, Exemptions and Ongoing Registrant Obligations*. Any resale of the shares must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 (or, in the case of securities issued or guaranteed by the government of a non-Canadian jurisdiction, section 3A.4) of National Instrument 33-105 *Underwriting Conflicts* (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

LEGAL MATTERS

The validity of the shares of common stock being offered by this prospectus will be passed upon for us by Cooley LLP, Palo Alto, California. Certain legal matters will be passed upon for the underwriters by Shearman & Sterling LLP, New York, New York. VLG Investments 1993 and VLG Investments 1994, each of which are entities in which certain partners of Cooley LLP are investors, beneficially own an aggregate 3,341 shares of our common stock.

EXPERTS

The consolidated financial statements as of December 31, 2018 and 2019 and for the years then ended included in this prospectus and in the registration statement, have been so included in reliance on the report of BDO USA, LLP, an independent registered public accounting firm (the report on the consolidated financial statements contains an explanatory paragraph regarding the company's ability to continue as a going concern), appearing elsewhere herein and in the registration statement, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act, with respect to the shares of common stock being offered by this prospectus, which constitutes a part of the registration statement. This prospectus, which constitutes a part of the registration statement, does not contain all of the information in the registration statement and its exhibits. For further information with respect to us and the common stock offered by this prospectus, we refer you to the registration statement and its exhibits. Statements contained in this prospectus as to the contents of any contract or any other document referred to are not necessarily complete, and in each instance, we refer you to the copy of the contract or other document filed as an exhibit to the registration statement. Each of these statements is qualified in all respects by this reference.

You can read our SEC filings, including the registration statement, over the internet at the SEC's website at *www.sec.gov*.

Upon the closing of this offering, we will be subject to the information reporting requirements of the Exchange Act, and we will file reports, proxy statements, and other information with the SEC. These reports, proxy statements, and other information will be available for inspection and copying at the website of the SEC referred to above. We also maintain a website at *www.pulmonx.com*, at which you may access these materials free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. **However, the information contained in or accessible through our website is not part of this prospectus or the registration statement of which this prospectus forms a part, and investors should not rely on such information in making a decision to purchase our common stock in this offering.**

Pulmonx Corporation

INDEX TO THE FINANCIAL STATEMENTS

Report of Independent Registered Public Accounting Firm

Board of Directors and Stockholders
Pulmonx Corporation
Redwood City, California

Opinion on the Consolidated Financial Statements
We have audited the accompanying consolidated balance sheets of Pulmonx Corporation (the "Company") as of December 31, 2018 and 2019, the related consolidated statements of operations and comprehensive loss, convertible preferred stock and stockholders' deficit, and cash flows for the years then ended, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2018 and 2019, and the results of its operations and its cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

Going Concern Uncertainty
The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the consolidated financial statements, the Company has suffered recurring losses from operations, has negative cash flows from operating activities, and significant accumulated deficit, which raises substantial doubt about its ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 1. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Change in Accounting Principle
As discussed in Note 2 to the consolidated financial statements, the Company has changed its method of accounting for leases during the year ended December 31, 2019, due to the adoption of the Accounting Standards Codification Topic 842, "Leases."

Basis for Opinion
These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ BDO USA, LLP

We have served as the Company's auditor since 2011.

San Jose, California

February 21, 2020, except for the "Reverse Stock Split" paragraph of Note 2, as to which the date is September 24, 2020

Pulmonx Corporation

Consolidated Balance Sheets

(in thousands, except share and per share amounts)

	December 31, 2018	December 31, 2019
Assets		
Current assets		
Cash and cash equivalents	$ 4,124	$ 14,767
Short-term marketable securities	—	13,580
Accounts receivable, net	2,950	5,511
Inventory	3,320	5,612
Prepaid expenses and other current assets	914	1,601
Total current assets	11,308	41,071
Property and equipment, net	375	902
Goodwill	2,333	2,333
Intangible assets, net	647	524
Deferred offering costs	—	1,563
Right of use assets	—	6,561
Other long-term assets	350	579
Total assets	$ 15,013	$ 53,533
Liabilities, Convertible Preferred Stock and Stockholders' Deficit		
Current liabilities		
Accounts payable	$ 1,289	$ 2,681
Accrued liabilities	5,876	9,463
Income taxes payable	48	233
Deferred revenue	139	173
Deferred rent	78	—
Current lease liabilities	—	446
Derivative liability	642	1,165
Total current liabilities	8,072	14,161
Deferred tax liability	48	43
Deferred rent, net of current portion	67	—
Long-term lease liabilities	—	6,403
Term loan	14,937	14,965
Convertible note payable to related party	18,668	—
Convertible preferred stock warrant liability	12	—
Total liabilities	41,804	35,572
Commitments and contingencies (Note 7)		
Convertible preferred stock, $0.001 par value, 130,909,906 and 177,985,811 shares authorized as of December 31, 2018 and December 31, 2019; 12,648,919 and 17,583,150 shares issued and outstanding as of December 31, 2018 and December 31, 2019; liquidation value of $145,478 and $210,610 as of December 31, 2018 and December 31, 2019 (Note 10)	140,535	205,339

Stockholders' (deficit) equity		
Common stock, $0.001 par value, 180,000,000 shares and 240,000,000 shares authorized as of December 31, 2018 and December 31, 2019; 1,719,446 and 2,100,203 shares issued and outstanding as of December 31, 2018 and December 31, 2019	2	2
Additional paid-in capital	21,139	21,750
Accumulated other comprehensive income	1,333	1,373
Accumulated deficit	(189,800)	(210,503)
Total stockholders' (deficit) equity	(167,326)	(187,378)
Total liabilities, convertible preferred stock and stockholders' (deficit) equity	$ 15,013	$ 53,533

The accompanying notes are an integral part of these consolidated financial statements.

Pulmonx Corporation

Consolidated Statements of Operations and Comprehensive Loss

(in thousands, except share and per share amounts)

	Years Ended December 31,	
	2018	2019
Revenue	$ 20,004	$ 32,595
Cost of goods sold	7,718	10,181
Gross profit	12,286	22,414
Operating expenses		
Research and development	6,991	6,049
Selling, general and administrative	20,347	34,203
Total operating expenses	27,338	40,252
Loss from operations	(15,052)	(17,838)
Interest income	21	432
Interest expense	(2,520)	(2,317)
Other income (expense), net	(916)	(617)
Net loss before tax	(18,467)	(20,340)
Income tax expense	12	363
Net loss	(18,479)	(20,703)
Other comprehensive income (loss)		
Currency translation adjustment	126	34
Change in unrealized (losses) gains on marketable securities	—	6
Total other comprehensive income (loss)	126	40
Comprehensive loss	$ (18,353)	$ (20,663)
Net loss per share attributable to common stockholders, basic and diluted	$ (11.03)	$ (11.66)
Weighted-average shares used in computing net loss per share attributable to common stockholders, basic and diluted	1,674,779	1,776,110
Pro forma net loss per share attributable to common stockholders, basic and diluted (unaudited)		$ (1.14)
Weighted-average shares used in computing pro forma net loss per share, basic and diluted (unaudited)		18,133,760

The accompanying notes are an integral part of these consolidated financial statements.

Pulmonx Corporation

Consolidated Statements of Convertible Preferred Stock and Stockholders' Deficit

(in thousands, except share amounts)

	Convertible Preferred Stock		Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Income	Accumulated Deficit	Total Stockholders' Deficit
	Shares	Amount	Shares	Amount				
Balances at January 1, 2018	12,641,035	$ 140,452	1,701,293	$ 2	$ 20,718	$ 1,207	$ (171,321)	$ (149,394)
Issuance of Series C-1 convertible preferred stock upon exercise of warrants	7,884	83	—	—	—	—	—	—
Issuance of common stock upon exercise of stock options	—	—	18,153	—	31	—	—	31
Change in shares subject to repurchase	—	—	—	—	24	—	—	24
Stock-based compensation expense	—	—	—	—	366	—	—	366
Currency translation adjustment	—	—	—	—	—	126	—	126
Net loss	—	—	—	—	—	—	(18,479)	(18,479)
Balances at December 31, 2018	12,648,919	$ 140,535	1,719,446	$ 2	$ 21,139	$ 1,333	$ (189,800)	$ (167,326)
Issuance of Series G-1 convertible preferred stock, net of issuance costs of $329	4,934,231	64,804	—	—	—	—	—	—
Issuance of common stock upon exercise of stock options	—	—	390,318	—	528	—	—	528
Change in shares subject to repurchase	—	—	—	—	(281)	—	—	(281)
Repurchase of early exercised common stock options	—	—	(9,147)	—	—	—	—	—
Common stock retired during the year for no consideration	—	—	(414)	—	—	—	—	—
Stock-based compensation expense	—	—	—	—	364	—	—	364
Currency translation adjustment	—	—	—	—	—	34	—	34
Change in unrealized (losses) gains on marketable securities	—	—	—	—	—	6	—	6
Net loss	—	—	—	—	—	—	(20,703)	(20,703)
Balances at December 31, 2019	17,583,150	$ 205,339	2,100,203	$ 2	$ 21,750	$ 1,373	$ (210,503)	$ (187,378)

The accompanying notes are an integral part of these consolidated financial statements.

Pulmonx Corporation

Consolidated Statements of Cash Flows

(in thousands)

	Years Ended December 31,	
	2018	2019
Cash flows from operating activities		
Net loss	$ (18,479)	$ (20,703)
Adjustments to reconcile net loss to net cash used in operating activities		
Stock-based compensation expense	366	364
Change in fair value of convertible preferred stock warrant liability	12	(12)
Change in fair value of derivative liability	642	523
Allowance for doubtful accounts	(15)	(4)
Inventory write-downs	297	332
Depreciation and amortization expense	270	365
Amortization of debt discount and debt issuance costs	36	28
Amortization of premiums and discounts on short-term marketable securities	—	(61)
Gain on extinguishment of convertible note	—	(32)
Non-cash lease expense	—	836
Net changes in operating assets and liabilities:		
Accounts receivable	(262)	(2,524)
Inventory	(1,245)	(2,613)
Prepaid expenses and other current assets	21	(684)
Other assets	18	3
Accounts payable	(648)	524
Accrued liabilities	928	3,375
Income taxes payable	(34)	182
Deferred rent	(62)	—
Lease liabilities	—	(692)
Deferred tax liability	(200)	(5)
Deferred revenue	(39)	33
Net cash used in operating activities	(18,394)	(20,765)
Cash flows from investing activities		
Purchases of investments	—	(21,450)
Maturities of investments	500	7,937
Purchases of property and equipment	(316)	(720)
Proceeds from sale of property and equipment	16	—
Net cash provided by (used in) investing activities	200	(14,233)
Cash flows from financing activities		
Proceeds from the issuance of convertible note, related party	12,000	6,000
Payments of deferred offering costs	—	(568)
Proceeds from issuance of Series G-1 convertible preferred stock, net of issuance costs of $329	—	39,671
Proceeds from exercise of warrants for Series C-1 convertible preferred stock	83	—
Proceeds from exercise of common stock options	31	528
Payments for the repurchase of early exercised common stock options	—	(12)
Net cash provided by financing activities	12,114	45,619
Effect of exchange rate changes on cash and cash equivalents	154	22
Net (decrease) increase in cash and cash equivalents	(5,926)	10,643
Cash and cash equivalents at beginning of year	10,050	4,124
Cash and cash equivalents at end of year	$ 4,124	$ 14,767

Supplemental non-cash items:		
Increase (lapse) in repurchase rights of common stock	$ 24	$ (281)
Purchases of property and equipment in accounts payable	$ —	$ 47
Accrued interest for convertible note	$ 738	$ 496
Conversion of convertible note into Series G-1 convertible preferred stock	$ —	$ 25,133
Deferred offering costs in accrued liabilities and accounts payable	$ —	$ 995
Deposit for operating lease in accounts payable	$ —	$ 231
Operating lease right of use asset recorded on the adoption of ASC 842	$ —	$ 1,181
Operating lease right of use assets obtained in exchange for new lease liabilities	$ —	$ 6,216
Supplemental disclosure of cash flow information:		
Cash paid for income taxes	$ 226	$ 196
Cash paid for interest	$ 1,361	$ 1,396

The accompanying notes are an integral part of these consolidated financial statements.

1. Formation and Business of the Company

The Company

Pulmonx Corporation (the "Company") was incorporated in the state of California in December 1995 as Pulmonx and reincorporated in the state of Delaware in December 2013. The Company is a commercial-stage medical technology company that provides a minimally invasive treatment for patients with severe emphysema, a form of chronic obstructive pulmonary disease (COPD). The Company's solution, which is comprised of the Zephyr Endobronchial Valve (Zephyr Valve), the Chartis Pulmonary Assessment System (Chartis System) and the StratX Lung Analysis Platform (StratX Platform), is designed to treat a broad pool of patients for whom medical management has reached its limits and either do not want or are ineligible for surgical approaches. The Company has subsidiaries in the Cayman Islands, Germany, Switzerland, Australia, the United Kingdom, the Netherlands, Italy, France and Hong Kong.

Liquidity and Going Concern

The Company has incurred operating losses and negative cash flows from operations to date and has an accumulated deficit of $210.5 million as of December 31, 2019. During the years ended December 31, 2018 and December 31, 2019, the Company used $18.4 million and $20.8 million of cash in its operating activities, respectively. As of December 31, 2019, the Company had cash, cash equivalents and short-term marketable securities of $28.3 million. Historically, the Company's activities have been financed through private placements of equity securities and debt. The Company's history of recurring losses, negative cash flows since inception and the need to raise additional funding to finance its operations raise substantial doubt about Company's ability to continue as a going concern. The Company's ability to continue as a going concern requires that the Company obtains sufficient funding to finance its operations. In the event the Company does not complete an IPO, the Company plans to continue to fund its operations and capital funding needs through a combination of private equity offerings, debt financings and other sources, including potential collaborations, licenses and other similar arrangements. If the Company is not able to secure adequate additional funding when needed, the Company will need to reevaluate its operating plan and may be forced to make reductions in spending, extend payment terms with suppliers, liquidate assets where possible, or suspend or curtail planned programs or cease operations entirely. These actions could materially impact the Company's business, results of operations and future prospects. There can be no assurance as to the availability or terms upon which such financing and capital might be available in the future. Having insufficient funds may also require the Company to delay, scale back or eliminate some or all of its development programs or relinquish rights to its technology on less favorable terms than it would otherwise choose. The foregoing actions and circumstances could materially impact the Company's business, results of operations and future prospects.

Therefore, there is substantial doubt about the entity's ability to continue as a going concern within one year after the date that the financial statements are issued. The accompanying consolidated financial statements have been prepared assuming the Company will continue to operate as a going concern, which contemplates the realization of assets and settlement of liabilities in the normal course of business. They do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classifications of liabilities that may result from uncertainty related to its ability to continue as a going concern.

2. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying consolidated financial statements have been prepared using accounting principles generally accepted in the United States of America ("GAAP").

Reverse Stock Split

On September 22, 2020, the Company effected a 1-for-10 reverse stock split of the Company's common stock and convertible preferred stock. The par value and authorized shares of common stock were not adjusted as a result of the reverse stock split. All issued and outstanding common stock, convertible preferred stock, stock options and per share amounts contained in the accompanying financial statements and notes to the financial statements have been retroactively adjusted to give effect to the reverse stock split for all periods presented.

Principles of Consolidation

The consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries. All intercompany balances and transactions have been eliminated in consolidation.

Unaudited Pro Forma Information

The unaudited pro forma basic and diluted net loss per share has been computed to give effect to (1) an adjustment to the denominator in the pro forma basic and diluted net loss per share calculation for the automatic conversion of the convertible preferred stock into shares of common stock as of the beginning of the respective period or the date of issuance, if later, (2) an adjustment to the denominator in the pro forma basic and diluted net loss per share calculation for the exercise of the convertible preferred stock warrants into shares of convertible preferred stock and further automatic conversion into shares of common stock as of the beginning of the respective period or the date of issuance, if later and (3) an adjustment to the numerator in the pro forma basic and diluted net loss per share calculation to remove gains or losses resulting from the remeasurement of the convertible preferred stock warrant liability.

Use of Estimates

The preparation of consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting periods. Although these estimates are based on the Company's knowledge of current events and actions it may undertake in the future, actual results may ultimately materially differ from these estimates and assumptions.

Significant estimates and assumptions include reserves and write-downs related to inventories, the recoverability of long term assets, valuation of equity instruments and equity-linked instruments, valuation of common stock, stock-based compensation, valuation of the convertible preferred stock warrant liability and derivative liability, intangible assets, goodwill, debt and related features, deferred tax assets and related valuation allowances and impact of contingencies.

Fair Value of Financial Instruments

The carrying amounts of the Company's financial instruments consisting of cash and cash equivalents, accounts receivable, accounts payable and accrued liabilities approximate fair value due to their relatively short maturities. The convertible preferred stock warrant liability and derivative liability are carried at fair value based on unobservable market inputs. Based on the borrowing rates currently available to the Company for debt with similar terms and consideration of default and credit risk, the carrying value of the term loan and convertible note payable to related party approximates their fair value. The fair value of marketable debt securities is estimated using Level 2 inputs based on their quoted market values (Note 4).

Cash and Cash Equivalents

The Company considers all highly liquid investments with an original maturity of three months or less at the time of purchase to be cash equivalents, which include money market funds.

Short-Term Marketable Securities

The Company determines the appropriate classification of its investments in marketable securities at the time of purchase and reevaluates such designation at each balance sheet date. The Company has classified and accounted for its marketable securities as available-for-sale. After consideration of the Company's risk versus reward objectives and liquidity requirements, the Company may sell these securities prior to their stated maturities. As the Company views these securities as available to support current operations, the Company classifies highly liquid securities with original maturities greater than three months at the time of purchase as short-term marketable securities on the balance sheet. These securities are carried at fair value as determined based upon quoted market prices or pricing models for similar securities. Unrealized gains and losses on available for sale debt securities, if any, are excluded from earnings and are reported as a component of accumulated other comprehensive income (loss). The amortized cost of debt securities is adjusted for amortization of premiums and accretion of discounts to maturity, which is included in interest income on the statements of operations and comprehensive loss. Realized gains and losses, if any, on available-for-sale securities are included in other income (expense), net. The cost of securities sold is based on the specific identification method. Interest and dividends on securities classified as available-for-sale are included in interest income. There were no short-term marketable securities as of December 31, 2018. The Company did not identify any of its short-term marketable securities as other-than-temporarily impaired as of December 31, 2019.

Concentration of Credit Risk

Financial instruments that potentially subject the Company to concentrations of risk consist principally of cash, cash equivalents and accounts receivable. The Company maintains its cash and cash equivalents balances with established financial institutions and, at times, such balances with any one financial institution may be in excess of the Federal Deposit Insurance Corporation ("FDIC") insured limits. As of December 31, 2019 and 2018, the Company also had cash on deposit with foreign banks of approximately $5.2 million and $2.2 million, respectively, that was not federally insured.

The Company earns revenue from the sale of its products to distributors and other customers such as hospitals. Sales of Zephyr Valves and delivery catheters accounted for most of our revenue for the years ended December 31, 2019 and 2018. The Company's accounts receivable are derived from revenue earned from distributors and customers. The Company performs ongoing credit evaluations of its customers' and distributors' financial condition and generally requires no collateral from its customers and distributors. At December 31, 2018 and December 31, 2019, no customer or distributor accounted for more than 10% of accounts receivable or revenue.

The Company relies on single source suppliers for the components, sub-assemblies and materials for its products. These components, sub-assemblies and materials are critical and there are no or relatively few alternative sources of supply. The Company's suppliers have generally met the Company's demand for their products and services on a timely basis in the past.

Deferred Offering Costs

Deferred offering costs, consisting of legal, accounting and other fees and costs relating to the Company's planned IPO, are capitalized and recorded on the balance sheet. The deferred offering costs will be offset against the proceeds received upon the closing of the planned IPO. In the event that the Company's plans for an IPO are terminated, all of the deferred offering costs will be written off within operating expenses in the Company's statements of operations and comprehensive loss. There were no deferred offering costs capitalized as of December 31, 2018. As of December 31, 2019, $1.6 million of deferred offering costs were recorded on the consolidated balance sheet.

Accounts Receivable and Allowances

Accounts receivable are recorded at the amounts billed less estimated allowances for doubtful accounts. The Company continually monitors customer payments and maintains an allowance for estimated losses resulting from a customer's inability to make required payments. Company considers factors such as historical experience, credit quality, age of the accounts receivable balances, geographic related risks and economic conditions that may affect a customer's ability to pay. As of December 31, 2018 and December 31, 2019, accounts receivable is presented net of an allowance for doubtful accounts of less than $0.1 million.

Inventories

Inventories are valued at the lower of cost to purchase or manufacture the inventory or net realizable value. Cost is determined using the first-in, first-out method ("FIFO") for all inventories. Net realizable value is determined as the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal and transportation. The Company records write-downs of inventories which are obsolete or in excess of anticipated demand or market value based on consideration of product lifecycle stage, technology trends, product development plans and assumptions about future demand and market conditions. Inventory write-downs reduce the carrying value of inventory to its net realizable value.

Property and Equipment, Net

Property and equipment are stated at cost less accumulated depreciation and amortization. Depreciation and amortization are computed using the straight-line method over the estimated useful lives of the assets, generally between three to five years. Leasehold improvements are amortized using the straight-line method over the shorter of the lease term or useful economic life of the asset. When assets are retired or otherwise disposed of, the cost and accumulated depreciation are removed from the balance sheet, and any resulting gain or loss is reflected in operations in the period realized.

Impairment of Long-lived Assets

The Company evaluates its long-lived assets for indicators of possible impairment by comparison of the carrying amounts to future net undiscounted cash flows expected to be generated by such assets when events or changes in circumstances indicate the carrying amount of an asset may not be recoverable. Should an impairment exist, the impairment loss would be measured based on the excess carrying value of the asset over the asset's fair value or discounted estimates of future cash flows. The Company has not identified any such impairment losses to date.

Goodwill

Goodwill represents the excess of the purchase price over the fair value of net tangible and identified intangible assets acquired in a business combination. Goodwill is not amortized but is evaluated at least annually for impairment or when a change in facts and circumstances indicate that the fair value of the goodwill may be below its carrying value.

The Company tests goodwill for impairment at the reporting unit level ("Reporting Unit"). The Company has determined that it has only one operating segment and one Reporting Unit. The operating results are reviewed only on a consolidated basis to make decisions about resources to be allocated and assess performance. Accordingly, goodwill is tested for impairment in a two-step process. First, the Company determines if the carrying amount of the Reporting Unit exceeds the fair value of the Reporting Unit, which may initially indicate that goodwill could be impaired. If the Company determines that such impairment could have occurred, the Company performs step two and compares the implied fair value of the goodwill to its carrying amount to determine the impairment loss, if any. Estimations and assumptions regarding the future performance and results of the Company's operations, including estimates related to future sales growth, gross margin and operating expenses, and the fair value of the Company's common stock are used in the impairment assessment. Circumstances that could reasonably be expected to negatively affect the key assumptions related to the impairment assessment include but are not limited to, (1) a significant adverse change in legal factors affecting our existing and future products or in business climate, (2) unanticipated competition, (3) an adverse action or assessment by a regulator, or (4) an adverse change in market conditions that are indicative of a decline in the fair value of the assets.

Intangible Assets

Intangible assets consist of developed technology and trademarks. Intangible assets were recorded at their fair values at the date of acquisition and are amortized using the straight-line method over a 15-year useful life (Note 5).

Leases

The Company leases its facilities and vehicles and meets the requirements to account for these leases as operating leases. The Company recognizes rent expense on a straight-line basis over the non-cancelable lease term. Where leases contain escalation clauses, rent abatements or concessions, such as rent holidays and landlord or tenant incentives or allowances, the Company applies them in the determination of straight-line rent expense over the lease term.

As of December 31, 2018, the Company records the difference between the rent paid and the straight-line rent as a deferred rent liability. As of December 31, 2018, leasehold improvements funded by landlord incentives or allowances are recorded as leasehold improvement assets and a corresponding deferred rent liability. The leasehold improvement asset is amortized over the lesser of the term of the lease or life of the asset. The deferred rent liability is amortized on a straight-line basis as a reduction to rent expense over the term of the lease agreement.

Upon adoption of ASC 842, Leases, on January 1, 2019, the Company determined if an arrangement is a lease, or contains a lease, at inception. The asset component of the Company's operating leases is recorded as right-of-use assets, and the liability component is recorded as current lease liabilities and long-term lease liabilities in the Company's consolidated balance sheets. As of December 31, 2019, the Company did not record any finance leases. ROU assets and lease liabilities are recognized based on the present value of the future minimum lease payments over the lease term at commencement date. As most of the Company's leases do not provide an implicit rate, the Company uses its incremental borrowing rate, which is the estimated rate we would be required to pay for a fully collateralized borrowing equal to the total lease payments over the term of the lease, to determine the present value of future minimum lease payments. The ROU asset also includes any lease payments made to the lessor at or before the commencement date, minus lease incentives received, and initial direct costs incurred. The Company's lease terms may include options to extend or terminate the lease when it is reasonably certain that the Company will exercise that option. Lease expense for minimum lease payments is recognized on a straight-line basis over the lease term. For lease agreements entered into or reassessed after the adoption of ASC 842, the Company combines lease and non-lease components. Variable lease payments are expenses as incurred.

Assumptions made by the Company at the commencement date are re-evaluated upon occurrence of certain events, including a lease modification. A lease modification results in a separate contract when the modification grants the lessee an additional right of use not included in the original lease and when lease payments increase commensurate with the standalone price for the additional right of use. When a lease modification results in a separate contract, it is accounted for in the same manner as a new lease.

Convertible Preferred Stock

The Company records all shares of convertible preferred stock at their respective fair values on the dates of issuance, net of issuance costs. The convertible preferred stock is recorded outside of permanent equity because while it is not mandatorily redeemable, in certain events considered not solely within the Company's control, such as a merger, acquisition or sale of all or substantially all of the Company's assets (each, a "deemed liquidation event"), the convertible preferred stock will become redeemable at the option of the holders of at least a majority of the then outstanding such shares. The Company has not adjusted the carrying values of the convertible preferred stock to its liquidation preference because a deemed liquidation event obligating the Company to pay the liquidation preferences to holders of shares of convertible preferred stock is not probable. Subsequent adjustments to the carrying values to the liquidation preferences will be made only when it becomes probable that such a deemed liquidation event will occur.

Convertible Preferred Stock Warrants

The Company's convertible preferred stock warrants require liability classification and accounting as the underlying convertible preferred stock is considered contingently redeemable and may obligate the Company to transfer assets to the holders at a future date upon occurrence of a deemed liquidation event. The convertible preferred stock warrants are recorded at fair value upon issuance and are subject to remeasurement to fair value at each balance sheet date, with any changes in fair value recognized in the consolidated statements of operations and comprehensive loss. The Company will continue to adjust the convertible preferred stock warrant liability for changes in fair value until the earlier of the exercise or expiration of the convertible preferred stock warrants, occurrence of a deemed liquidation event or conversion of convertible preferred stock into common stock.

If all outstanding shares of the series of convertible preferred stock for which the convertible preferred stock warrants are exercisable for are converted to shares of common stock or any other security, then thereafter (a) the convertible preferred stock warrants shall become exercisable for such number of shares of common stock or such other security as is equal to the number of shares of common stock or such other security that each share of convertible preferred stock was converted into, multiplied by the number of shares subject to the convertible preferred stock warrants immediately prior to such conversion, and (b) the exercise price of the convertible preferred stock warrants shall automatically be adjusted to equal to the number obtained by dividing (1) the aggregate exercise price for which the convertible preferred stock warrants were exercisable immediately prior to such conversion by (2) the number of shares of common stock or such other security for which the convertible preferred stock warrants are exercisable immediately after such conversion.

Revenue Recognition

The Company's revenue is generated from the sale of its products to distributors and hospitals in the United States and international markets.

On January 1, 2018, the Company adopted Accounting Standards Codification ("ASC") 606, *Revenue from Contracts with Customers*, using the full retrospective method. In connection with the adoption of ASC 606, the Company also adopted the related amendments that impact the accounting for the incremental costs of obtaining a contract.

Under ASC 606, revenue is recognized when the customer obtains controls of promised goods or services, in an amount that reflects consideration which the entity expects to receive in exchange for those goods or services. To determine revenue recognition for arrangements that an entity determines are within the scope of ASC 606, the Company performs the following five steps as prescribed by ASC 606:

(i) identify the contract(s) with a customer;

(ii) identify the performance obligations in the contract;

(iii) determine the transaction price;

(iv) allocate the transaction price to the performance obligations in the contract; and

(v) recognize revenue when (or as) the entity satisfies performance obligations.

A contract with a customer exists when (i) the Company enters into a legally enforceable contract with a customer that defines each party's rights regarding the products or services to be transferred and identifies the payment terms related to these products or services, (ii) the contract has commercial substance and, (iii) the Company determines that collection of substantially all consideration for products or services that are transferred is probable based on the customer's intent and ability to pay the promised consideration. The Company identifies performance obligations in contracts with customers, which may include its products and implied promises to provide free products and analysis services for patient scans. The transaction price is determined based on the amount expected to be entitled to in exchange for transferring the promised services or product to the customer. The Company is entitled to the total consideration for the products ordered by customers, net of early pay discounts, volume rebate adjustments and other transaction price adjustments. The Company's payment terms to customers generally range from 30 to 60 days. Payment terms fall within the one-year guidance for the practical expedient which allows the Company to forgo adjustment of the promised amount of consideration for the effects of a significant financing component. The Company excludes taxes assessed by governmental authorities on revenue-producing transactions from the measurement of the transaction price.

Assuming all other revenue recognition criteria are met, revenue is recognized when control of the Company's products transfers to the customer. For sales where the Company's sales representative hand delivers product directly to the hospital or medical center control transfers to the customer upon this delivery. For sales where products are shipped, control is transferred either upon shipment or delivery of the products to the customer, depending on the shipping terms and conditions. For consignment sales, control is transferred when the products are used by the customer in procedures. The Company defers revenue relating to any remaining performance obligations by the Company to the customer after delivery, such as free products and free analysis services of patient scans to determine suitability of the patients for the treatment using the Company's Zephyr Valves. As permitted under the practical expedient, the Company does not disclose the value of unsatisfied performance obligations for contracts with an original expected length of one year or less.

The Company accepts product returns at its discretion or if the product is defective as manufactured. Historically, the actual product returns have been immaterial to the Company's financial statements. The Company elected to treat shipping and handling costs as a fulfillment cost and include them in the cost of goods sold as incurred. In those cases where the Company bills shipping and handling costs to customers, it will classify the amounts billed within revenue.

The Company disaggregates its revenue by major geographic region, which has been disclosed in Note 13, "Segment Information".

The Company's contract liabilities consist of deferred revenue for remaining performance obligations by the Company to the customer after delivery, which was $0.1 million and $0.2 million as of December 31, 2018 and December 31, 2019. The deferred revenue as of December 31, 2017 was $0.2 million, which was recognized as revenue during the year ended December 31, 2018. The deferred revenue as of December 31, 2018 of $0.1 million, which was recognized as revenue during the year ended December 31, 2019.

The Company elected the following practical expedients allowed upon adoption of ASC 606:

(i) The Company did not restate contracts that began and were completed within the same annual reporting period;

(ii) For completed contracts that have variable consideration, the Company used the transaction price at the date the contract was completed rather than estimating variable consideration amounts in the comparative reporting periods;

(iii) For all reporting periods presented before the date of initial application, the Company did not disclose the amount of the transaction price allocated to the remaining performance obligations and when the Company expects to recognize that amount as revenue; and

(iv) For contracts that were modified before the beginning of the earliest reporting period presented in accordance with ASC 606, the Company did not retrospectively restate the contract for those contract modifications. Instead, the Company reflected the aggregate effect of all modifications that occurred before the beginning of the earliest period presented in accordance with ASC 606 when:

  i. Identifying satisfied and unsatisfied performance obligations;

ii. Determining the transaction price; and

iii. Allocating the transaction price to the satisfied and unsatisfied performance obligations.

The Company recognized the cumulative effect of initially applying ASC 606 as an adjustment to the opening balance of accumulated deficit.

Costs associated with product sales include commissions. The Company applies the practical expedient and recognizes commissions as expense when incurred because the expense is incurred at a point in time and the amortization period is less than one year. Commissions are recorded as selling expense.

Cost of Goods Sold

The Company manufactures certain products at its facility and purchases other products from third party manufacturers. Cost of goods sold consists primarily of costs related to materials, components and subassemblies, third-party costs, manufacturing overhead costs, direct labor, reserves for excess, obsolete and non-sellable inventories as well as distribution-related expenses. A significant portion of the Company’s cost of goods sold currently consists of manufacturing overhead costs. These overhead costs include the cost of quality assurance, material procurement, inventory control, facilities, equipment and operations supervision and management. Cost of goods sold also includes depreciation expense for production equipment and certain direct costs such as shipping costs.

Research and Development

Research and development expenses consist of compensation costs, stock-based compensation, engineering and research expenses, clinical trials and related expenses, regulatory expenses, manufacturing expenses incurred to build products for testing, allocated facilities costs, consulting fees and other expenses incurred to sustain the Company’s overall research and development programs. All research and development costs are expensed as incurred.

Clinical trial costs are a significant component of the Company’s research and development expenses. The Company has a history of contracting with third parties that perform various clinical trial activities on the Company’s behalf in the ongoing development of its product candidates. The financial terms of these contracts are subject to negotiations and may vary from contract to contract and may result in uneven payment flow. The Company accrues and expenses costs for its clinical trial activities performed by third parties, including clinical research organizations and other service providers, based upon estimates of the work completed over the life of the individual study in accordance with associated agreements. The Company determines these estimates through discussion with internal personnel and outside service providers as to progress or stage of completion of trials or services pursuant to contracts with clinical research organizations and other service providers and the agreed-upon fee to be paid for such services.

Advertising Costs

The Company expenses the costs of advertising as incurred. Advertising expenses were $0.1 million and $0.6 million for the years ended December 31, 2018 and December 31, 2019, respectively.

Foreign Currency Translation and Transaction Gains and Losses

The functional currencies of the Company’s wholly owned subsidiaries in the Cayman Islands and the Netherlands are the U.S. dollar. The functional currencies of the Company’s wholly owned subsidiaries in Switzerland, Germany, Australia, the United Kingdom, France and Hong Kong are the Swiss franc. The functional currency of the Company’s subsidiary in Italy is the Euro. Accordingly, asset and liability accounts of Switzerland, Germany, Australia, the United Kingdom, Italy and Hong Kong operations are translated into U.S. dollars using the current exchange rate in effect at the balance sheet date and equity accounts are translated into U.S. dollars using historical rates. The revenues and expenses are translated using the average exchange rates in effect during the period, and gains and losses from foreign currency translation adjustments are included as a component of accumulated other comprehensive income in the consolidated balance sheet. Foreign currency translation adjustments are recorded in other comprehensive income (loss) in the consolidated statements of operations and comprehensive loss and was $0.1 million and less than $0.1 million during the years ended December 31, 2018 and December 31, 2019, respectively.

Foreign currency transaction gains and losses are included in other income (expense), net in the consolidated statements of operations and comprehensive loss and was $0.3 million and $0.1 million during the years ended December 31, 2018 and December 31, 2019, respectively.

Stock-Based Compensation

The Company accounts for stock-based compensation arrangements with employees in accordance with ASC 718, *Compensation—Stock Compensation*, using a fair-value based method. The Company determines the fair value of stock options on the date of grant using the Black-Scholes option pricing model. The Company's determination of the fair value of stock options is impacted by its common stock price as well as assumptions regarding a number of complex and subjective variables. These variables include, but are not limited to, the expected term that options will remain outstanding, expected common stock price volatility over the term of the option awards, risk-free interest rates and expected dividends. Changes in the assumptions can materially affect the fair value and ultimately how much stock-based compensation expense is recognized. These inputs are subjective and generally require significant analysis and judgment to develop.

The fair value of time-based awards is recognized over the period during which an option holder is required to provide services in exchange for the option award, known as the requisite service period, which is typically the vesting period using the straight-line method. The fair value of performance-based awards is recognized over the requisite service period using the graded vesting method. Upon the adoption of Accounting Standards Update ("ASU") 2016-09 for periods after January 1, 2018, the Company no longer records estimated forfeitures on share-based awards and, instead, have elected to record forfeitures as they occur.

The Company issued stock options in exchange for the receipt of goods or services from non-employees. Costs for such equity instruments are measured at the fair value of the equity instruments issued on the measurement date as the Company believes that the fair value of the equity instrument is more reliably measured than the fair value of the services received. Up to December 31, 2018, the value of equity instruments issued to non-employees was determined on the earlier of the date on which there first existed a firm commitment for performance by the provider of goods and services or on the date performance is complete, using the Black-Scholes option pricing model. Therefore, the measurement of stock-based compensation issued to non-employees was subject to periodic adjustment as the underlying equity instruments vested. Stock-based compensation expense related to stock options granted to non-employees was recognized as the stock options are earned. Upon adoption of ASU 2018-07 for the periods after January 1, 2019, the Company accounts for shared-based awards granted to non-employees based on the fair value on the date of grant and recognizes compensation expense for those awards over the requisite service period, which is generally the vesting period of the respective award.

Income Taxes

The Company accounts for income taxes under the liability method, whereby deferred tax assets and liabilities are determined based on the difference between the consolidated financial statements and tax bases of assets and liabilities using the enacted tax rates in effect for the year in which the differences are expected to affect taxable income. A valuation allowance is established when necessary to reduce deferred tax assets when management estimates, based on available objective evidence, that it is more likely than not that the benefit will not be realized for the deferred tax assets.

The Company also follows the provisions of ASC 740-10, *Accounting for Uncertainty in Income Taxes*. ASC 740-10 prescribes a comprehensive model for the recognition, measurement, presentation and disclosure in financial statements of any uncertain tax positions that have been taken or expected to be taken on a tax return. No liability related to uncertain tax positions is recorded on the consolidated financial statements. It is the Company's policy to include penalties and interest expense related to income taxes as part of the provision for income taxes.

Net Loss per Share Attributable to Common Stockholders

Basic net loss per common share is calculated by dividing the net loss attributable to common stockholders by the weighted-average number of common stock outstanding during the period, without consideration of potentially dilutive securities. Diluted net loss per share is computed by dividing the net loss attributable to common stockholders by the weighted-average number of common stock and potentially dilutive securities outstanding for the period. For purposes of the diluted net loss per share calculation, convertible preferred stock, stock options, common stock subject to repurchase related to early exercise of stock options, convertible preferred stock warrants and convertible note are considered to be potentially dilutive securities. Basic and diluted net loss attributable to common stockholders per share is presented in conformity with the two-class method required for participating securities as the convertible preferred stock is considered a participating security because it participates in dividends with common stock. The Company also considers the shares issued upon the early exercise of stock options subject to repurchase to be participating securities, because holders of such shares have non-forfeitable dividend rights in the event a dividend is paid on common stock. The holders of all series of convertible preferred stock and the holders of the shares issued upon early exercise of stock options subject to repurchase do not have a contractual obligation to share in the Company's losses. As such, the net loss was attributed entirely to common stockholders. Because the Company has reported a net loss for all periods presented, diluted net loss per common share is the same as basic net loss per common share for those periods.

Comprehensive Loss

The Company is required to report all components of comprehensive loss, including net loss, in the financial statements in the period in which they are recognized. Comprehensive loss is defined as a change in equity of a business enterprise during a period, resulting from transactions and other events and circumstances from non-owner sources. The Company's currency translation adjustment and unrealized gains and losses from marketable securities are the components of other comprehensive loss that are excluded from the reported net loss for all periods presented.

3. Recent Accounting Pronouncements

Recently Adopted Accounting Pronouncements

In June 2018, Financial Accounting Standards Board ("FASB") issued ASU 2018-07, *Compensation—Stock Compensation (Topic 718): Improvements to Non-employee Share-Based Payment Accounting.* This ASU aligns the measurement and classification guidance for share-based payments to non-employees with the guidance for share based payment to employees. Under this ASU, the measurement of equity-classified non-employee awards will be fixed at the grant date, which may lower their cost and reduce volatility in the statements of operations and comprehensive loss. The transition method provided by this ASU is on a modified retrospective basis, which recognizes a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption. This ASU is effective for public business entities for fiscal years beginning after December 15, 2018, including interim periods within that fiscal year. Early adoption is permitted, but may take place no earlier than a company's adoption date of ASC 606, *Revenue from Contracts with Customers*. The Company adopted ASU 2018-07 as of January 1, 2019 and the adoption did not have a material impact on the Company's consolidated financial statements.

In July 2017, FASB issued ASU 2017-11, *Earnings Per Share (Topic 260) Distinguishing Liabilities from Equity (Topic 480) Derivatives and Hedging (Topic 815) (Part I) Accounting for Certain Financial Instruments with Down Round Features, (Part II) Replacement of the Indefinite Deferral for Mandatorily Redeemable Financial Instruments of Certain Nonpublic Entities and Certain Mandatorily Redeemable Noncontrolling Interests with a Scope Exception*. This ASU simplifies the accounting for certain financial instruments with down round features, a provision in an equity-linked financial instrument (or embedded feature) that provides a downward adjustment of the current exercise price based on the price of future equity offerings. Down round features are common in warrants, preferred shares and convertible debt instruments issued by private companies and early-stage public companies. This ASU requires companies to disregard the down round feature when assessing whether the instrument is indexed to its own stock, for purposes of determining liability or equity classification. For public business entities, the amendments in Part I of this ASU are effective for fiscal years beginning after December 15, 2018, and interim periods within those fiscal years. Early adoption is permitted. The amendments in Part I should be applied (1) retrospectively to outstanding financial instruments with a down round feature by means of a cumulative-effect adjustment to the balance sheet as of the beginning of the first fiscal year and interim periods; (2) retrospectively to outstanding financial instruments with a down round feature for each prior reporting period presented. The amendments in Part II of this ASU do not require any transition guidance because those amendments do not have an accounting effect. The Company adopted ASU 2017-11 as of January 1, 2019 and the adoption had no impact on the Company's consolidated financial statements.

In August 2016, the FASB issued ASU 2016-15, *Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments.* This ASU requires changes to how cash receipts and cash payments are presented and classified in the statement of cash flows. This ASU is effective for fiscal years beginning after December 15, 2017, and interim periods within those fiscal years. Early adoption is permitted. This ASU requires adoption on a retrospective basis. The Company adopted ASU 2016-15 as of January 1, 2018 and the adoption had no impact on the Company's consolidated financial statements.

In March 2016, the FASB issued ASU 2016-09, *Stock Compensation – Improvements to Employee Share-Based Payment Accounting*. The amendments in this ASU are intended to simplify several areas of accounting for share-based compensation arrangements, including the income tax consequences, classification on the consolidated statement of cash flows and treatment of forfeitures. The amendments in this ASU are effective for fiscal years beginning after December 15, 2017, and interim periods within those fiscal years. The Company adopted ASU 2016-09 as of January 1, 2018 and the adoption had no material impact on the Company's consolidated financial statements.

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842) ("ASC 842")*, which sets out the principles for the recognition, measurement, presentation and disclosure of leases for both parties to a contract (i.e. lessees and lessors). In July 2018, the FASB issued ASU 2018-10, Codification Improvements to Topic 842, Leases, which provides clarification to ASU 2016-02. In March 2019, the FASB issued ASU 2019-01, which provides clarification on implementation issues associated with adopting ASU 2016-02. These ASUs (collectively the "new leasing standard") requires lessees to apply a dual approach, classifying leases as either finance or operating leases based on the principle of whether or not the lease is effectively a financed purchase by the lessee. This classification will determine whether lease expense is recognized based on an effective interest method or on a straight-line basis over the term of the lease, respectively. A lessee is also required to record a right-of-use asset and a lease liability for all leases with a term of greater than 12 months regardless of their classification. ASC 842 provides a lessee with an option to not account for leases with a term of 12 month or less as leases in the scope of the new standard. ASC 842 supersedes the previous leases standard, ASC 840, *Leases*. The new leasing standard is effective for public business entities for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. Early adoption is permitted. In July 2018, the FASB issued ASU 2018-11, Leases (Topic 842): Targeted Improvements, which allows entities to elect an optional transition method where entities may continue to apply the existing lease guidance during the comparative periods and apply the new lease requirements through a cumulative effect adjustment in the period of adoption rather than in the earliest period presented. The Company adopted ASU 842 using the modified retrospective approach as of January 1, 2019. Results for reporting periods beginning after January 1, 2019 are presented under Topic 842, while prior period amounts are not adjusted and continue to be reported in accordance with our historical accounting under Topic 840. The Company elected the package of practical expedients permitted under the transition guidance within Topic 842, which allowed us to carry forward the historical lease classification, retain the initial direct costs for any leases that existed prior to the adoption of the standard and not reassess whether any contracts entered into prior to the adoption are leases. The Company also elected to account for lease and non-lease components in our lease agreements as a single lease component in determining lease assets and liabilities. In addition, the Company elected not to recognize the right-of-use assets and liabilities for leases with lease terms of one year or less. The Company recognized right-of-use assets of $1.2 million and lease liabilities of $1.3 million for its operating leases as of January 1, 2019, and eliminated deferred rent of $0.1

million. The adoption of these ASUs did not have any impact on the statements of operations and comprehensive loss and statements of cash flows. The additional disclosures required by the new standard have been included in Note 2, “Summary of Significant Accounting Policies” and Note 7, “Leases, Lease Commitments, and Contingencies”.

In May 2014, the FASB issued ASU 2014-09, *Revenue from Contracts with Customers (Topic 606)*, which will supersede most current revenue recognition guidance. The underlying principle is that an entity will recognize revenue to depict the transfer of goods or services to customers at an amount that the entity expects to be entitled to in exchange for those goods or services. The guidance provides a five-step analysis of transactions to determine when and how revenue is recognized. The guidance also requires enhanced disclosures regarding the nature, amount, timing and uncertainty of revenue and cash flows arising from an entity’s contracts with customers. Since May 2014, the FASB has issued several amendments to the standard. This new standard is effective for public business entities for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. Early adoption is permitted. The guidance permits the use of either a retrospective or cumulative effect transition method. The Company adopted ASU 2014-09 using the full retrospective method as of January 1, 2018. The additional disclosures required by the new standard have been included in Note 2, “Summary of Significant Accounting Policies.”

Recent Accounting Pronouncements Not Yet Adopted

In December 2019, the FASB issued ASU 2019-12, *Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes*, which is intended to simplify various aspects related to accounting for income taxes. ASU 2019-12 removes certain exceptions to the general principles in Topic 740 and also clarifies and amends existing guidance to improve consistent application. This ASU is effective for public business entities for fiscal years beginning after December 15, 2020, and interim periods within those fiscal years. The Company is evaluating the impact of the adoption of ASU 2019-12 on its financial statements.

In August 2018, FASB issued ASU 2018-13, *Fair Value Measurement (Topic 820), Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement*. This ASU amends the disclosure requirement in ASC 820, *Fair Value Measurement*, by adding, changing or removing certain disclosures. This ASU applies to all entities that are required under this guidance to provide disclosure about recurring or nonrecurring fair value measurements. The amendments require new disclosures related to: changes in unrealized gains and losses for the period included in other comprehensive income for recurring Level 3 fair value measurements held at the end of the reporting period; range and weighted-average of significant unobservable inputs used to develop Level 3 fair value measurements. In addition, there are certain changes in disclosure requirements in the existing guidance. For all entities, this ASU is effective for fiscal years beginning after December 15, 2019, and interim periods within those fiscal years. Early adoption is permitted. The Company is currently evaluating the impact the adoption of this standard will have on its consolidated financial statements and related disclosures.

In January 2017, the FASB issued ASU 2017-04, *Intangibles – Goodwill and Other: Simplifying the Test for Goodwill Impairment*. The amendments eliminate Step 2 from the goodwill impairment test. The annual, or interim, goodwill impairment test is performed by comparing the fair value of a reporting unit with its carrying amount. An impairment charge should be recognized for the amount by which the carrying amount exceeds the reporting unit’s fair value; however, the loss recognized should not exceed the total amount of goodwill allocated to that reporting unit. In addition, income tax effects from any tax deductible goodwill on the carrying amount of the reporting unit should be considered when measuring the goodwill impairment loss, if applicable. The amendments also eliminate the requirements for any reporting unit with a zero or negative carrying amount to perform a qualitative assessment and, if it fails that qualitative test, to perform Step 2 of the goodwill impairment test. An entity still has the option to perform the qualitative assessment for a reporting unit to determine if the quantitative impairment test is necessary. This ASU is effective for public business entities for its annual or any interim goodwill impairment tests in fiscal years beginning after December 15, 2019. Early adoption is permitted. The Company is currently evaluating the impact the adoption of this standard will have on its consolidated financial statements and related disclosures.

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments – Credit Losses*. This new guidance will require financial instruments to be measured at amortized cost, and trade accounts receivable to be presented at the net amount expected to be collected. The new model requires an entity to estimate credit losses based on historical information, current information and reasonable and supportable forecasts, including estimates of prepayments. In November 2019, the FASB issued ASU 2019-10, according to which, the new standard is effective for public business entities that meet the definition of an SEC filer, excluding entities eligible to be smaller reporting companies ("SRC") as defined by the SEC, for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years. For all other entities , the new standard is effective for fiscal years beginning after December 15, 2022, and interim periods within that fiscal year. Early adoption is permitted. The Company is a SRC for fiscal year 2019. The Company is currently evaluating the impact of the new standard on its consolidated financial statements.

4. Fair Value Measurements

Assets and liabilities recorded at fair value in the consolidated financial statements are categorized based upon the level of judgment associated with the inputs used to measure their fair value. Hierarchical levels which are directly related to the amount of subjectivity associated with the inputs to the valuation of these assets or liabilities are as follows:

Level 1 – Inputs are unadjusted quoted prices in active markets for identical assets or liabilities that the Company has the ability to access as of the measurement date.

Level 2 – Inputs are observable, unadjusted quoted prices in active markets for similar assets or liabilities, unadjusted quoted prices for identical or similar assets or liabilities in markets that are not active or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the related assets or liabilities;

Level 3 – Unobservable inputs for the asset or liability only used when there is little, if any, market activity for the asset or liability at the measurement date. This hierarchy requires the Company to use observable market data, when available, and to minimize the use of unobservable inputs when determining fair value.

Assets and Liabilities Measured and Recorded at Fair Value on a Recurring Basis – Financial assets and liabilities held by the Company measured at fair value on a recurring basis include money market funds, short-term marketable securities, convertible preferred stock warrant liability and derivative liability.

Assets and Liabilities Measured and Recorded at Fair Value on a Nonrecurring Basis – The Company determines the fair value of long-lived assets held and used, such as intangible assets, by reference to independent appraisals, quoted market prices (e.g. an offer to purchase) and other factors. An impairment charge is recorded when the carrying value of the asset exceeds its fair value. As noted above, there have been no impairment charges recorded to date. Based on the borrowing rates currently available to the Company for debt with similar terms and consideration of default and credit risk, the carrying value of the term loan and convertible note payable to related party approximates their fair value and is classified as a Level 2 liability.

Assets and liabilities measured at fair value are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. The Company's assessment of the significance of a particular input to the fair value measurement in its entirety requires management to make judgments and consider factors specific to the asset or liability.

The following tables summarizes the types of assets and liabilities measured at fair value on a recurring basis by level within the fair value hierarchy (in thousands):

	December 31, 2018			
	Level 1	Level 2	Level 3	Total
Assets:				
Money market funds	$ 51	$ —	$ —	$ 51
Total financial assets	51	—	—	51
Liabilities:				
Preferred stock warrant liability	—	—	12	12
Derivative liability	—	—	642	642
Total financial liabilities	$ —	$ —	$ 654	$ 654

	December 31, 2019			
	Level 1	Level 2	Level 3	Total
Assets:				
Money market funds	$ 6,318	$ —	$ —	$ 6,318
Commercial paper	—	1,000	—	1,000
Cash equivalents	6,318	1,000	—	7,318
Corporate bonds	—	7,105	—	7,105
Commercial paper	—	6,475	—	6,475
Short-term marketable securities	—	13,580	—	13,580
Total financial assets	$ 6,318	$ 14,580	$ —	$ 20,898
Liabilities:				
Preferred stock warrant liability	$ —	$ —	$ —	$ —
Derivative liability	—	—	1,165	1,165
Total financial liabilities	$ —	$ —	$ 1,165	$ 1,165

The following table summarizes the cost, unrealized gains and losses and fair value of marketable securities (in thousands):

	December 31, 2019			
	Amortized Cost	Unrealized Losses	Unrealized Gains	Fair Value
Corporate bonds	$ 7,103	$ —	$ 2	$ 7,105
Commercial paper	7,471	—	4	7,475
Marketable securities	$ 14,574	$ —	$ 6	$ 14,580
Amounts recognized on the consolidated balance sheet				
Cash equivalents				$ 1,000
Short-term marketable securities				13,580
Marketable securities				$ 14,580

Accrued interest on marketable securities of $0.1 million is included in prepaid expenses and other current assets on the consolidated balance sheet.

The Company values the convertible preferred stock warrant liability (Note 9) using the Black-Scholes Merton option-pricing model. The expected term for these warrants is based on the remaining contractual life of these warrants. The expected volatility assumption was determined by examining the historical volatility for industry peers, as the Company does not have a trading history for its common stock. The risk-free interest rate assumption is based on U.S. Treasury investments whose term is consistent with the expected term of the warrants. The expected dividend assumption is based on the Company's history and expectation of dividend payouts.

The fair value of the Series C-1 convertible preferred stock warrants was determined using the following assumptions:

	December 31,	
	2018	2019
Risk-free interest rate	2.6 %	1.6 %
Remaining contractual life (in years)	1.1	0.1
Dividend yield	0 %	0 %
Volatility	46.0 %	57.5 %

The derivative liability is associated with the Company's Success Fee Agreement with Oxford Finance LLC (Note 6). The Company values this derivative liability based on the Success Fee amount of $1.9 million and the probability and estimated timing of a liquidity event. The probability of occurrence of a Liquidity Event was estimated to be up to 40% and 65% before the expiration of the agreement as of December 31, 2018 and December 31, 2019, respectively. Changes in the estimated probability may result in an increase or decrease in the fair value of the derivative liability.

The change in fair value of the convertible preferred stock warrant liability and derivative liability is summarized below (in thousands):

	Convertible Preferred Stock Warrant Liability	Derivative Liability
Beginning fair value, January 1, 2018	$ —	$ —
Change in fair value	12	642
Ending fair value, December 31, 2018	$ 12	$ 642
Beginning fair value, January 1, 2019	12	642
Change in fair value	(12)	523
Ending fair value, December 31, 2019	$ 0	$ 1,165

5. Balance Sheet Components

Cash and Cash Equivalents

The Company's cash and cash equivalents consist of the following (in thousands):

	December 31,	
	2018	2019
Cash	$ 4,073	$ 7,449
Cash equivalents:		
Money market funds	51	6,318
Commercial paper	—	1,000
Total cash and cash equivalents	$ 4,124	$ 14,767

Inventory

Inventory consists of the following (in thousands):

	December 31,	
	2018	2019
Raw materials	$ 811	$ 1,950
Work in process	100	180
Finished goods	2,409	3,482
Total inventory	$ 3,320	$ 5,612

Prepaid Expenses and Other Current Assets

Prepaid expenses and other current assets consist of the following (in thousands):

	December 31,	
	2018	2019
Prepaid expenses	$ 146	$ 436
Prepaid insurance	172	12
VAT receivable	471	387
Other current assets	125	766
Total prepaid expenses and other current assets	$ 914	$ 1,601

Property and Equipment, Net

Property and equipment, net consist of the following (in thousands):

	December 31,	
	2018	2019
Machinery and equipment	$ 1,068	$ 1,269
Computer equipment and software	813	848
Furniture and fixtures	233	168
Leasehold improvements	6	57
Total	2,120	2,342
Less: accumulated depreciation	(1,745)	(1,440)
Property and equipment, net	$ 375	$ 902

Depreciation expense for the years ended December 31, 2018 and December 31, 2019 was $0.1 million and $0.2 million, respectively.

Goodwill

Goodwill was $2.3 million as of December 31, 2018 and December 31, 2019 arising from the Company’s acquisition of Emphasys Medical, Inc, in March 2009. No goodwill impairment losses have been recognized since the acquisition. There were no acquisitions or dispositions of goodwill in 2018 and 2019. The Company performed an annual test for goodwill impairment in the fourth quarter of the fiscal years ended December 31, 2018 and December 31, 2019 and determined that goodwill was not impaired.

Intangible Assets

Intangible assets consist of the following (in thousands):

	December 31, 2018		
	Gross Carrying Value	Accumulated Amortization	Net Carrying Value
Developed technology	$ 1,658	$ (1,078)	$ 580
Trademarks	191	(124)	67
Total intangible assets	$ 1,849	$ (1,202)	$ 647

	December 31, 2019		
	Gross Carrying Value	Accumulated Amortization	Net Carrying Value
Developed technology	$ 1,658	$ (1,188)	$ 470
Trademarks	191	(137)	54
Total intangible assets	$ 1,849	$ (1,325)	$ 524

Amortization expense relating to the intangibles totaled $0.1 million during 2018 and 2019, respectively.

Future amortization expense is as follows (in thousands):

Year Ending December 31,	
2020	$ 123
2021	123
2022	123
2023	123
2024	32
Total amortization expense	$ 524

Accrued Liabilities

Accrued liabilities consist of the following (in thousands):

	December 31,	
	2018	2019
Accrued employee bonuses	$ 1,771	$ 3,064
Accrued vacation	830	1,098
Other accrued personnel related expenses	562	705
Accrued professional fees	338	1,342
Accrued interest	1,313	1,708
Sales taxes, franchise tax and VAT	682	762
Other	380	784
Total accrued liabilities	$ 5,876	$ 9,463

6. Long Term Debt and Convertible Notes

Term Loan

In August 2014, the Company entered into a Loan and Security Agreement with Oxford Finance LLC for up to $20.0 million in term loans. In 2014, the Company borrowed $15.0 million and had the ability to draw an additional $5.0 million conditioned upon the achievement of a revenue milestone. The period during which the Company could draw an additional $5.0 million ended on November 30, 2015 without the Company borrowing the additional $5.0 million. The term loan bore interest at 8.96% and had a five-year term. The first 36 months were interest only payments followed by 24 months of equal payments of principal and interest. A final payment of 8.50% of the term loan amount is due at maturity and is being accreted using the effective interest rate method. The term loan is collateralized by assets, including cash and cash equivalents, accounts receivable and property and equipment.

In May 2017, the Company entered into a First Amendment to Loan and Security Agreement that extended the interest only period through June 2018 and included an additional fee of $0.1 million due upon maturity. The amendment was accounted for as a debt modification and no gain or loss is recognized in the Company's financial statements.

In May 2018, the Company entered into Second and Third Amendments to Loan and Security Agreement that extended the interest only period through May 2019 and the maturity date to July 1, 2020. The amendment was accounted for as a debt modification and no gain or loss is recognized in the Company's financial statements. The Company had the option to further extend the interest only period through March 2020 and the maturity date to May 1, 2021, provided that no event of default had occurred. The loan bears interest at an annual rate equal to the greater of (i) 8.71% and (ii) the sum of (a) the greater of the one month U.S. LIBOR rate on the last business day of the month that immediately precedes the month in which the interest will accrued and 1.85% plus (b) 6.86%. In May 2019, the Company elected to extend the interest only period of the term loan through March 2020 and the maturity date to May 2021. The incremental amendment fee, due at maturity, increased to $0.8 million from $0.4 million when the Company extended the interest only period through March 2020. As of December 31, 2018 and December 31, 2019, the term loan had an annual effective interest rate of 11.17% per year and 11.11% per year, respectively.

In connection with the original agreement in August 2014, the Company also entered into the Success Fee Agreement. In the event of a sale or other disposition by the Company of all or substantially all of its assets, a merger or consolidation, or an initial public offering (a "Liquidity Event"), before the termination of the agreement on August 28, 2021, the Company is required to pay up to $2.5 million (the "Success Fee") to Oxford Finance LLC. The Success Fee is equal to 6.25% of the term loan if the Liquidity Event occurs within 18 months of August 28, 2014, 8.75% if the Liquidity Event occurs after 18 months and within 3 years of August 28, 2014, and 12.50% if the Liquidity Event occurs after the third anniversary of August 28, 2014. As of December 31, 2018 and December 31, 2019, the maximum amount of Success Fee subject to a potential payout is $1.9 million. This agreement has been identified as a freestanding derivative under ASC 815, *Derivatives* and is remeasured to its fair value at the end of each reporting period and any change in fair value is recognized as change in other income (expense), net in the statements of operations and comprehensive loss (Note 4). The fair value of the derivative liability as of December 31, 2018 and December 31, 2019 was $0.6 million and $1.2 million, respectively.

The term loan consists of the following (in thousands):

	December 31,	
	2018	2019
Term loan	$ 15,000	$ 15,000
Less: debt issuance costs	(48)	(27)
Less: deferred financing costs	(15)	(8)
Term loan	$ 14,937	$ 14,965

As of December 31, 2019, future payments under term loan, including interest only payments and the final payment, are as follows (in thousands):

Year Ending December 31,		
2020	$	10,699
2021		7,652
Total		18,351
Less: unamortized debt discount		(35)
Less: interest		(3,351)
Term loan	$	14,965

The Company incurred fees and legal expenses of $0.1 million in connection with the Agreement and Amendments, which are recorded as deferred financing costs and amortized to interest expense. The Company also paid $0.2 million in fees to the lender which is reflected as a discount on the debt and is being accreted over the life of the term loan. In 2018 and 2019, the Company recorded interest expense related to deferred financing and debt issuance costs of less than $0.1 million.

Interest expense on the term loan amounted to $1.7 million and $1.7 million during the years ended December 31, 2018 and December 31, 2019, respectively. The Loan and Security Agreement contains customary affirmative and negative covenants and events of default. As of December 31, 2018, the Company was in compliance with all the covenants contained in the Loan and Security Agreement. As of December 31, 2019, the Company was in default with a covenant in the Loan and Security Agreement resulting from its failure to maintain cash balances outside the United States within the levels set forth in the Loan and Security Agreement. This event of default was waived by Oxford Finance LLC.

Convertible Note

In May 2017, the Company entered into a Second Lien Loan and Security Agreement with Boston Scientific Corporation, an investor, for up to $30.0 million in term loans. The loans under this agreement are subordinated to the term loan with Oxford Finance LLC and are also collateralized by assets, including cash and cash equivalents, accounts receivable and property and equipment. Under the Agreement, Boston Scientific Corporation agreed to make one or more term loans to the Company during the period beginning in May 2017 and ending on May 13, 2022, the maturity date (the "Term Loans"). The principal amount outstanding under the Term Loans drawn prior to June 30, 2018 accrued no interest from the date of such Term Loan through and including June 30, 2018. Beginning on July 1, 2018, all Term Loans accrued interest at a fixed rate of 8.96%. Interest accrues until such Term Loan is converted to stock or paid in full. Each Term Loan is evidenced by a separate Secured Convertible Promissory Note and is repayable, convertible and exchangeable.

If the Company completes any Qualified Equity or Debt Financing or any Change of Control, Liquidation or Prepayment Conversion occurs, outstanding principal and accrued interest on the loans are convertible at Boston Scientific Corporation's option into shares of either (1) the Series F-1 convertible preferred stock or, if the shares of Series F-1 convertible preferred stock are not the most senior series of preferred stock of the Company then issued and outstanding (2) the most senior series of preferred stock of the Company then issued and outstanding ("Conversion Stock"). The Conversion Stock Per Share Price is defined as (A) with respect to a Qualified Equity Financing, the lowest price per share of Conversion Stock paid by any investor in such Qualified Equity Financing, (B) with respect to a Change of Control or Liquidation, the total amount distributed, paid or to be paid to the stockholders of the Company on account of the stock held by them in connection with such Change of Control or Liquidation, divided by the fully-diluted share count of the Company on the Conversion Date or (C) with respect to a Prepayment Conversion, $230,000,000 divided by the fully-diluted share count of the Company on the Conversion Date.

Subject to Boston Scientific Corporation's conversion rights, the Company had the option to prepay all of the Term Loans, at any time.

In conjunction with the Second Lien Loan and Security Agreement, the Company and Boston Scientific entered into a No Shop Agreement such that from the date of execution of the agreement through the earlier of the Company's submission of the final module of its Premarket Approval application to the FDA and March 31, 2018, the Company would not sign a term sheet or engage in discussions to sell the Company. In addition, Boston Scientific's Right of First Negotiation, originally received as part of the Preferred Series F-1 financing, was amended to shorten the period it has to exercise its Right of First Negotiation from 10 to 5 business days, and to shorten the Exclusive Negotiation Period from 75 to 45 days with respect to the initial notice from the Company that it intends to pursue a change in control or IPO. For subsequent notices from the Company, Boston Scientific has 10 days to exercise its right of first negotiation, and 75 days to enter into definitive agreements for a change in control transaction.

The Company borrowed $6.0 million in 2017, $12.0 million in 2018 and $6.0 million in January 2019 under the Second Lien Loan and Security Agreement with Boston Scientific Corporation. At December 31, 2019, the Company retained the ability to draw up to an additional $6.0 million under the BSC Agreement until the maturity date in May 2022.

In April 2019, all the Term Loans and accrued interest of $25.1 million under the agreement converted into 1,903,935 shares of Series G-1 convertible preferred stock at a price of $13.20 per share at the option of Boston Scientific Corporation upon the occurrence of Series G-1 convertible preferred stock financing, which met the definition of Qualified Equity Financing in the Second Lien Loan and Security Agreement (Note 10). This conversion was accounted as debt extinguishment and the Company recognized less than $0.1 million extinguishment gain upon such conversion.

The convertible note consists of the following (in thousands):

	December 31,	
	2018	2019
Convertible note	$ 18,000	$ —
Less: debt issuance costs	(98)	—
Accrued interest	766	—
Convertible note payable to related party	$ 18,668	$ —

The Company incurred fees and legal expenses of $0.1 million in connection with the Agreement, which are reported on the balance sheet as a direct deduction from the face amount of the convertible note. Amortization of the issuance costs are calculated using the effective interest rate method over the term of the note and recorded as a non-cash interest expense. In 2018, the Company accrued interest expense of $0.8 million, which was included in convertible note payable to related party at December 31, 2018. As of December 31, 2018, the Term Loans had an annual effective interest rate of 7.47% per year.

The Second Lien Loan and Security Agreement contains customary affirmative and negative covenants and events of default. As of December 31, 2018 and December 31, 2019, the Company was in compliance with all the covenants contained in the Second Lien Loan and Security Agreement.

In January 2020, the Company terminated the Second Lien Loan and Security Agreement.

7. Leases, Lease Commitments and Contingencies

The Company has a lease for its headquarters location in Redwood City, California through July 2020. In October 2019, the Company renewed its lease for the headquarters location in Redwood City, California for an additional five years commencing in August 2020 and expiring in July 2025. The monthly base rent during the renewed term will be $0.1 million and is subject to an annual increase of 3.5%. The Company is responsible for its share of real estate taxes, common area maintenance and management fees. The Company will receive a tenant improvement allowance of $0.2 million on commencement of the renewal term in August 2020.

During 2013, the Company entered into a five-year lease for office facilities in Switzerland which expired in January 2018. In 2017, the Company amended the lease and extended the term through January 2020. The Company had an option to extend the lease through January 2022 by providing notice to the landlord by the end of January 2019, which was not exercised by the Company. Per lease terms, in the event the option to extend is not exercised, the lease remains in force and can be terminated with a 12-month's notice.

The Company has leases on two vehicle leases with lease terms ranging from 2 to 4 years.

Rent expense for the year ended December 31, 2018 under ASC 840 was $1.0 million.

Operating lease cost consists of the following (in thousands):

	Year Ended December 31, 2019	
Operating lease cost	$	1,037
Short-term lease cost		13
Variable lease cost		234
Total lease cost	$	1,284

The following table summarizes a maturity analysis of our lease liabilities showing the aggregate lease payments as of December 31, 2019 (in thousands):

Year Ending December 31,		
2020	$	1,142
2021		1,536
2022		1,580
2023		1,636
2024		1,693
2025 and beyond		1,007
Total minimum lease payments		8,594
Less: Amount of lease payments representing interest		1,745
Present value of future minimum lease payments	$	6,849
Less: Current lease liabilities	$	446
Long-term lease liabilities	$	6,403

The following table summarizes balance sheet and other information related to our operating leases as of December 31, 2019 (in thousands, except weighted average data):

Right of use asset	$	6,561
Current lease liabilities	$	446
Long-term lease liabilities	$	6,403
Weighted average remaining lease term (years)		5.54
Weighted average discount rate (percent)		7.0

The following table summarizes other supplemental information related to our operating leases (in thousands):

Cash paid for amounts included in the measurement of lease liabilities included in cash flows used in operating activities	$	893
Right-of-use assets obtained in exchange for lease liabilities	$	7,316

Future minimum lease payments under the non-cancelable operating leases as of December 31, 2018 under ASC 840 are as follows (in thousands):

Year Ending December 31,		
2019	$	870
2020		489
Total minimum lease payments	$	1,359

Contingencies

From time to time, the Company may be a party to various litigation claims in the normal course of business. Legal fees and other costs associated with such actions are expensed as incurred. The Company assesses, in conjunction with legal counsel, the need to record a liability for litigation and contingencies. Accrual estimates are recorded when and if it is determinable that such a liability for litigation and contingencies are both probable and reasonably estimable.

In December 2018, a former distributor outside the United States filed suit alleging the Company's subsidiary, PulmonX International Sàrl, conducted unfair competitive practices and violated the exclusive distribution rights as a result of the subsidiary's termination of its distribution agreement. The complaint seeks pecuniary and non-pecuniary damages. The Company is in the initial stages of evaluating this matter and does not believe the impact of any such matter will be material to the Company's results of operation or financial position.

8. Income Taxes

Income before the provision for income taxes consists of the following (in thousands):

	Years Ended December 31,	
	2018	2019
Domestic	$ (12,527)	$ (17,142)
Foreign	(5,940)	(3,198)
Total income before provision for taxes	$ (18,467)	$ (20,340)

The components of income tax expense are as follows (in thousands):

	Years Ended December 31,	
	2018	2019
Current:		
Federal	$ —	$ —
State	2	10
Foreign	207	358
Total current expense	209	368
Deferred:		
Federal	(222)	7
State	4	27
Foreign	21	(39)
Total deferred expense	(197)	(5)
Total income tax expense	$ 12	$ 363

The reconciliation between the federal statutory rate and the Company's effective tax rate is summarized below:

	Years Ended December 31,	
	2018	2019
Federal statutory rate	21.0 %	21.0 %
State taxes, net of federal benefit	1.0 %	2.7 %
Foreign earnings at different rates	(8.0)%	(4.8)%
Tax credits	0.9 %	0.6 %
Permanent differences	(0.3)%	(0.4)%
Prior year true-up	(2.9)%	0.0 %
Change in valuation allowance	10.7 %	(20.9)%
Expiration of net operating loss carryforwards and credits	(22.5)%	0.0 %
Effective tax rate	(0.1)%	(1.8)%

Deferred income taxes arise from temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax reporting purposes, as well as operating losses and tax credit carryforwards. Significant components of the Company's deferred tax assets and liabilities for federal and state income taxes are as follows (in thousands):

	December 31,	
	2018	2019
Deferred tax assets:		
Net operating loss carryforwards	$ 19,519	$ 22,500
Tax credit carryforwards	4,659	4,896
Other	850	1,926
Gross deferred tax assets	25,028	29,322
Less: valuation allowance	(24,736)	(28,953)
Deferred tax assets	292	369
Deferred tax liabilities:		
Depreciation	(17)	(23)
Goodwill	(323)	(389)
Net deferred tax liabilities	$ (48)	$ (43)

The Company has established a full valuation allowance against its U.S. net deferred tax assets due to the uncertainty surrounding the realization of such assets. Realization of deferred tax assets is dependent upon future earnings, if any, the timing and amount of which are uncertain. Accordingly, the U.S. net deferred tax assets have been fully offset by a valuation allowance of $29.0 million as of December 31, 2019. The valuation allowance decreased by $2.0 million and increased by $4.2 million for the years ended December 31, 2018 and 2019, respectively.

As of December 31, 2019, the Company had total net operating loss carryforwards for federal income tax purposes of approximately $96.0 million. If not utilized, these net federal operating loss carryforwards will expire beginning in 2020. The Company also had a state net operating loss carryforward of approximately $34.5 million which will expire beginning in 2028. The Company also had federal and state research and development ("R&D") tax credit carryforwards of approximately $2.6 million and $4.0 million, respectively. The federal tax R&D credit carryforwards will expire beginning in 2030 while the state tax R&D credit carryforwards have no expiration date.

Utilization of the net operating loss carryforwards and R&D tax credit carryforwards may be subject to annual limitations due to the ownership change limitations provided by the Internal Revenue Code, as defined in Section 382, and other similar state provisions. The annual limitation may result in the expiration of net operating losses and credits before utilization. During the year ended December 31, 2018, the Company completed a formal 382 study for which the Company wrote off deferred tax assets for NOLs and credits of $3.1 million and $1.2 million, respectively. Since the Company had a full valuation allowance on these assets, there was no material impact to the tax provision.

Undistributed earnings of the Company's foreign subsidiaries amounted to a deficit balance at December 31, 2018. Foreign earnings, if any, are considered to be permanently reinvested and accordingly, no deferred U.S. income taxes have been provided thereon.

Annually, the Company determines whether it is "more likely than not" that a tax position will be sustained upon examination by the appropriate taxing authorities in considering whether any tax benefit can be recorded in the consolidated financial statements. As of December 31, 2019, the Company had unrecognized tax benefits of approximately $1.0 million, none of which will affect the tax rate if recognized. It is unlikely that the amount of liability for unrecognized tax benefits will significantly change over the next 12 months.

The following table summarizes the activity related to the Company's gross unrecognized tax benefits (in thousands):

Balance at December 31, 2017	$ 1,070
Additions for tax positions related to current year	57
Reductions for tax positions related to prior year	(185)
Balance at December 31, 2018	$ 942
Additions for tax positions related to current year	47
Additions for tax positions related to prior year	0
Balance at December 31, 2019	$ 989

It is the Company's policy to include penalties and interest expense related to income taxes as a component of other expense and interest expense, respectively, as necessary.

The Company's major tax jurisdictions are the United States and California, Switzerland and Neuchâtel, and Grand Cayman. All of the Company's tax years will remain open for examination by the federal and state tax authorities for three and four years, respectively, from the date of utilization of the net operating loss or R&D Credits. The Company does not have any tax audits or other issues pending.

For the year ended December 31, 2018, the Company adopted a change in accounting policy in accordance with ASU 2016-09 to account for excess tax benefits and tax deficiencies as income tax expense or benefit, treated as discrete items in the reporting period in which they occur, and to recognize previously unrecognized deferred tax assets that arose directly from (or the use of which was postponed by) tax deductions related to equity compensation in excess of compensation recognized for financial reporting. The change was applied on a modified retrospective basis; no prior periods were restated as a result of this change in accounting policy.

In December 2017, the SEC issued Staff Accounting Bulletin No. 118 ("SAB 118"), which provided a measurement period of up to one year from enactment date of the 2017 Tax Act for the Company to complete the accounting for the 2017 Tax Act and its related impacts. The income tax effects of the 2017 Tax Act for which the accounting was incomplete may include: the impact of the transition tax, the revaluation of deferred tax assets and liabilities to reflect the 21% corporate tax rate and the impact to the aforementioned items on state income taxes. During the year ended December 31, 2018, the Company completed its accounting for the 2017 Tax Act and did not recognize any material adjustments to the provisional amounts.

The 2017 Tax Act included the implementation of a modified territorial tax system, which has the effect of subjecting earnings of our foreign subsidiaries to U.S. taxation on Global Intangible Low-Taxed Income ("GILTI"). The FASB allows companies to adopt a policy election to account for the tax on GILTI under one of two methods: (i) account for the tax on GILTI as a component of tax expense in the period in which the tax is incurred (the period cost method), or (ii) account for the tax on GILTI in a company's measurement of deferred taxes (the deferred method). The Company has elected to account for the tax on GILTI under the period cost method.

9. Warrants for Convertible Preferred Stock

A summary of the outstanding convertible preferred stock warrants is as follows (in thousands, except per share and share amounts):

		December 31, 2018		December 31, 2019		
	Exercise Price Per share	Shares	Fair Value of Liability	Shares	Fair Value of Liability	Expiration Date
Series C-1 convertible preferred stock warrants	$ 10.57	215,291	$ 12	215,291	$ —	February 9, 2020

Series B-1 Convertible Preferred Stock Warrants

The Series B-1 convertible preferred stock warrants were issued in conjunction with a bank financing in 2008. The Series B-1 convertible preferred stock warrants expired August 24, 2018.

Series C-1 Convertible Preferred Stock Warrants

During February through October 2010, the Company issued an aggregate of 3,177,559 shares of Series C-1 convertible preferred stock in exchange for cash of $21.5 million and the conversion of outstanding convertible promissory notes and accrued interest on notes being converted. Additionally, 201,224 shares were issued in conjunction with the terms of a 2009 acquisition. In connection with the issuance of Series C-1 convertible preferred stock, the Company issued warrants to purchase 732,810 shares of Series C-1 convertible preferred stock at an exercise price of $10.57 per share. The Company recorded the fair value of the warrants of $1.9 million as convertible preferred stock warrant liability. The Company recorded a charge to interest and other expense of $0.2 million associated with the beneficial conversion feature.

During 2013, warrants to purchase 285,139 shares of Series C-1 convertible preferred stock were exercised at an exercise price of $10.57 per share, yielding $3.0 million. The Company revalued the warrants immediately prior to exercise and recorded income of $0.2 million in change in fair value of convertible preferred stock warrant liability in the consolidated statements of operations and comprehensive loss.

During 2015, warrants to purchase 9,199 shares of Series C-1 convertible preferred stock were exercised at an exercise price of $10.57 per share, yielding $0.1 million. The Company revalued the warrants immediately prior to exercise and recorded income of less than $0.1 million in change in fair value of convertible preferred stock warrant liability in the consolidated statements of operations and comprehensive loss.

In June 2015, the Board approved the extension of the maturity date from June 2015 to February 2017 for 32,343 warrants for Series C-1 convertible preferred stock.

In February 2017, the Board approved the extension of the maturity date from February 2017 to February 2018 for 438,468 warrants for Series C-1 convertible stock.

In February 2018, the Board amended the warrants to extend the expiration date to February 2020, provided that the share amount exercisable under the warrants decreases by 50% if exercised after February 8, 2018. As the warrants are measured at fair value, the impact of the amendment on the fair value of the warrants was recorded in the statements of operations and comprehensive loss.

In February 2018, warrants to purchase 7,884 shares of Series C-1 convertible preferred stock were exercised at an exercise price of $10.57 per share, yielding $0.1 million. Pursuant to the February 2018 warrant amendment, shares issuable upon exercise of the warrants decreased from 430,588 to 215,291.

The Company revalued the remaining warrants at December 31, 2018 and December 31, 2019, and the Company recorded expense of less than $0.1 million and income of less than $0.1 million, respectively, in change in other income (expense), net in the consolidated statements of operations and comprehensive loss.

In February 2020, warrants to purchase 213,876 shares of Series C-1 convertible preferred stock were exercised at an exercise price of $10.57 per share, yielding $2.3 million cash proceeds and warrants to purchase 1,415 shares of Series C-1 convertible preferred stock warrants expired.

10. Convertible Preferred Stock

Under the Company’s Amended and Restated Certificate of Incorporation, the Company is authorized to issue up to 177,985,811 shares of convertible preferred stock.

In April 2019, the Company issued 3,030,296 shares of Series G-1 convertible preferred stock at a price of $13.20 per share for cash proceeds of approximately $40.0 million. Additionally, the Company issued 1,903,935 shares of Series G-1 convertible preferred stock at a price of $13.20 per share upon the conversion of $25.1 million of convertible promissory notes and accrued interest with Boston Scientific Corporation (Note 6).

As of December 31, 2018, convertible preferred stock consists of the following (in thousands, except per share and share amounts):

Series	Number of Shares Authorized	Number of Shares Issued and Outstanding	Carrying Value(1)	Liquidation Preference per Share	Liquidation Value
Series A-1	8,486,224	848,595	$ 8,135	$ 9.59	$ 8,138
Series B-1	24,338,205	2,422,444	23,130	$ 10.57	25,605
Series C-1	41,575,922	3,726,974	37,306	$ 10.57	39,395
Series D-1	9,400,000	939,979	10,268	$ 11.00	10,340
Series E-1	9,230,768	923,049	11,896	$ 13.00	12,000
Series F-1	37,878,787	3,787,878	49,800	$ 13.20	50,000
Total	130,909,906	12,648,919	$ 140,535		$ 145,478

(1) Carrying values above are net of issuance costs.

As of December 31, 2019, convertible preferred stock consists of the following (in thousands, except per share and share amounts):

Series	Number of Shares Authorized	Number of Shares Issued and Outstanding	Carrying Value(1)	Liquidation Preference per Share	Liquidation Value
Series A-1	8,486,224	848,595	$ 8,135	$ 9.59	$ 8,138
Series B-1	24,224,676	2,422,444	23,130	$ 10.57	25,605
Series C-1	39,422,980	3,726,974	37,306	$ 10.57	39,395
Series D-1	9,400,000	939,979	10,268	$ 11.00	10,340
Series E-1	9,230,768	923,049	11,896	$ 13.00	12,000
Series F-1	37,878,787	3,787,878	49,800	$ 13.20	50,000
Series G-1	49,342,376	4,934,231	64,804	$ 13.20	65,132
Total	177,985,811	17,583,150	$ 205,339		$ 210,610

(1) Carrying values above are net of issuance costs.

Dividends

The holders of Series A-1, Series B-1, Series C-1, Series D-1, Series E-1, Series F-1 and Series G-1 convertible preferred stock are entitled to receive dividends, out of any assets legally available, prior and in preference to any declaration or payment of any dividend on the common stock of the Company, at a rate of $0.7672, $0.8456, $0.8456, $0.88, $1.04, $1.056 and $1.056 respectively, per share per year (as adjusted for stock splits, stock dividends, reclassifications and similar events) payable quarterly when, and as declared by the Board of Directors and are not cumulative. After payment of such dividends, any additional dividends shall be distributed the holders of Series A-1, Series B-1, Series C-1, Series D-1, Series E-1, Series F-1 and Series G-1 convertible preferred stock and common stock on a pro rata basis. No dividends have been declared to date.

Liquidation

In the event of any liquidation, dissolution or winding up of the Company, either voluntary or involuntary, the holders of Series G-1 convertible preferred stock shall be entitled to receive, prior and in preference to any distribution of the assets of the Corporation or any such consideration to the holders of Series A-1, Series B-1, Series C-1, Series D-1, Series E-1 and Series F-1 convertible preferred stock or the holders of common stock, an amount equal to $13.20 per share (as adjusted for stock splits, stock dividends, reclassification and similar events) plus any declared but unpaid dividends. If upon the occurrence of such event, the assets and funds available are insufficient to permit the payment to the Series G-1 convertible preferred stockholders of the full preferential amounts, then the entire assets and funds of the Company legally available for distribution shall be distributed ratably among the holders of Series G-1 convertible preferred stock in proportion to the preferential amount each such holder is otherwise entitled to receive. After the payment in full of the Series G-1 liquidation preference, the holders of Series F-1 convertible preferred stock shall be entitled to receive, prior and in preference to any distribution of the assets of the Corporation or any such consideration to the holders of Series A-1, Series B-1, Series C-1, Series D-1 and Series E-1 convertible preferred stock or the holders of common stock, an amount equal to $13.20 per share (as adjusted for stock splits, stock dividends, reclassification and similar events) plus any declared but unpaid dividends. If upon the occurrence of such event, the assets and funds available are insufficient to permit the payment to the Series F-1 convertible preferred stockholders of the full preferential amounts, then the entire assets and funds of the Company legally available for distribution shall be distributed ratably among the holders of Series F-1 convertible preferred stock in proportion to the preferential amount each such holder is otherwise entitled to receive. After the payment in full of the Series F-1 liquidation preference, the holders of the Series E-1 convertible preferred stock shall be entitled to receive, prior and in preference to any distribution of the assets of the Corporation or any such consideration to the holders of Series A-1, Series B-1, Series C-1, and Series D-1 convertible preferred stock or the holders of common stock, an amount equal to $13.00 per share (as adjusted for stock splits, stock dividends, reclassification and similar events) plus any declared but unpaid dividends. If upon the occurrence of such event, after payment in full of the Series F-1 liquidation preference, the assets and funds available are insufficient to permit the payment to the Series E-1 convertible preferred stockholders of the full preferential amounts, then the entire assets and funds of the Company legally available for distribution shall be distributed ratably among the holders of Series E-1 convertible preferred stock in proportion to the preferential amount each such holder is otherwise entitled to receive. After the payment in full of the Series F-1 liquidation preference and the Series E-1 liquidation preference, the holders of Series A-1, Series B-1, Series C-1 and Series D-1 convertible preferred stock are entitled to receive, prior and in preference to any distribution of the assets of the Corporation or any such consideration to the holders of common stock, an amount equal to $9.59, $10.57, $10.57 and $11.00 per share (as adjusted for stock splits, stock dividends, reclassification and similar events) plus any declared but unpaid dividends. If upon the occurrence of such liquidation, the assets and funds of the Company legally available for distribution are insufficient to permit payment to such holders, then the entire remaining assets and funds shall be distributed ratably among such holders in proportion to the preferential amounts each such holder is otherwise entitled to receive.

In the event of a Liquidation Transaction involving one or more third parties other than the purchaser of Series F-1 convertible preferred stock and after the payment in full of the liquidation preference required to be paid, the holders of the Series F-1 convertible preferred stock shall be entitled to receive, prior and in preference to any distribution of any of the assets of the Company or any such consideration to the holders of common stock an amount equal to the Additional Preference (as defined below) for each share of Series F-1 preferred stock then held by them. Upon the closing of a Liquidation Transaction, if the amounts earned or payable to the stockholders of the Corporation on or before the one (1) year anniversary of the closing of such Liquidation Transaction is (i) equal to or greater than $250.0 million but less than $300.0 million, the Additional Preference is equal to $3.30 per share (as adjusted for stock splits, stock dividends, reclassifications and the like) for each share of Series F-1 convertible preferred stock then held by them, (ii) equal to or greater than $300.0 million but less than $350.0 million, the Additional Preference is equal to $5.00 per share (as adjusted for stock splits, stock dividends, reclassifications and the like) for each share of Series F-1 preferred stock then held by them, and (iii) equal to or greater than $350.0 million, the Additional Preference is equal to $6.60 per share (as adjusted for stock splits, stock dividends, reclassifications and the like) for each share of Series F-1 convertible preferred stock then held by them.

After liquidation preferences to the convertible preferred stockholders have been paid, and after the Additional Preference has been paid, if any, the remaining assets of the Company shall be distributed to the holders of common stock, Series A-1, Series B-1, Series C-1, Series D-1, Series E-1, Series F-1 and Series G-1 convertible preferred stock as if the convertible preferred shares were converted into common stock at then-applicable conversion price until the Series A-1, Series B-1, Series C-1, Series D-1, Series E-1, Series F-1 and Series G-1 convertible preferred stock have received an aggregate amount (including the initial preference amount) equal to $28.77, $31.71, $31.71, $33.00, $39.00, $39.60 and $39.60 per share (as adjusted for stock splits, stock dividends, reclassifications and similar events) plus any declared and unpaid dividends. The holders of common stock are entitled to receive ratably on a per-share basis all remaining assets.

A liquidation, dissolution or winding up of the Company shall be deemed to be occasioned by, or include, (A) the sale, lease, license on an exclusive basis, conveyance or disposition (whether by merger or otherwise) by the Company of all or substantially all of the assets of the Company, or the sale or disposition of one or more subsidiaries of the Company if substantially all of the assets of the Company and its subsidiaries taken as a whole are held by such subsidiary or subsidiaries, or (B) the merger of the Company with or into any other corporation, limited liability company or other entity (other than a wholly-owned subsidiary of the Company); provided that none of the following shall be considered a Liquidation Transaction: (i) a merger effected exclusively for the purpose of changing the domicile of the Company, (ii) an equity financing effected for bona fide capital raising purposes in which the Company is the surviving entity or (iii) any transaction in which the stockholders of the Company immediately prior to the transaction own greater than 50% of the voting power of the Company or such other surviving or resulting entity (or if the Company or such other surviving or resulting entity is a wholly-owned subsidiary immediately following such acquisition, its parent).

Voting

The holders of convertible preferred stock shall have the same voting rights as the holders of common stock. The holders of common stock and the convertible preferred stock shall vote together as a single class on all matters. Each holder of common stock shall be entitled to one vote for each share of common stock held, and each holder of convertible preferred stock shall be entitled to the number of votes equal to the number of shares of common stock into which such shares of convertible preferred stock could be converted.

As of December 31, 2019, the Board of Directors was comprised of nine members. For so long as there are outstanding at least 50,000 shares of Series A-1 convertible preferred stock (as adjusted for stock splits, reclassifications or similar events), the holders of Series A-1 convertible preferred stock, voting as a separate class, shall be entitled to elect one member of the Company’s Board of Directors. For so long as there are outstanding at least 50,000 shares of Series B-1 convertible preferred stock (as adjusted for stock splits, reclassifications or similar events), the holders of Series B-1 convertible preferred stock, voting as a separate class, shall also be entitled to elect two members of the Company’s Board of Directors. For so long as there are outstanding at least 50,000 shares of Series C-1 convertible preferred stock (as adjusted for stock splits, reclassifications or other similar transactions), the holders of Series C-1 convertible preferred stock, voting as a separate class, shall be entitled to elect two members of the Company’s Board of Directors. For so long as there are outstanding at least 50,000 shares of Series G-1 convertible preferred stock (as adjusted for stock splits, reclassifications or other similar transactions), the holders of Series G-1 convertible preferred stock, voting as a separate class, shall be entitled to elect one member of the Company’s Board of Directors. The holders of common stock and convertible preferred stock, voting together as a single class on an as-if-converted basis, shall be entitled to elect all remaining members of the Board of Directors.

Conversion

Each share of convertible preferred stock shall be convertible, at the option of the holder at any time after the date of issuance into the number of fully paid and non-assessable shares of common stock as determined by dividing the original issue price per share of each series of convertible preferred stock by the conversion price per share in effect for the shares of each series of convertible preferred stock at the time of conversion. The original conversion price per share of Series A-1, Series B-1, Series C-1, Series D-1, Series E-1, Series F-1 and Series G-1 convertible preferred stock shall be the original issue price, subject to adjustment, as described in the Company's Amended and Restated Certificate of Incorporation.

Each share of convertible preferred stock shall automatically be converted into shares of common stock at the conversion rate at the time in effect for such share immediately upon the earlier of (i) the Company's sale of its common stock in a firm commitment underwritten public offering pursuant to a registration statement under the Securities Act of 1933 ("IPO") which results in aggregate cash proceeds to the Company of not less than $30.0 million (net of underwriting discounts and commissions) ("Qualified IPO") or (ii) the date specified by the vote or written consent of the holders of at least a majority of the then outstanding shares of convertible preferred stock, voting together as a single class. However, if the offering price to the public in a Qualified IPO ("Public Offering Price") is less than 1.15 times of the conversion price of the Series G-1 convertible preferred stock in effect immediately prior to the Qualified IPO, then the conversion price for the Series G-1 convertible preferred stock shall be adjusted such that, upon the closing of the Qualified IPO, each share of Series G-1 convertible preferred stock will convert into that number of shares of common stock equal to the sum of (a) the number of shares of common stock issuable upon conversion of such share of Series G-1 convertible preferred stock immediately prior to the Qualified IPO (the "Pre-IPO Shares") and (b) an additional number of shares of common stock determined by multiplying the Pre-IPO Shares by the quotient of (x) the difference between 1.15 times the conversion price of the Series G-1 convertible preferred stock immediately prior to the Qualified IPO and the Public Offering Price, divided by (y) the Public Offering Price.

11. Stockholders' Deficit

Common Stock

As of December 31, 2018 and December 31, 2019, the Company's certificate of incorporation authorized the Company to issue up to 180,000,000 and 240,000,000 shares of common stock, respectively. Common stockholders are entitled to dividends as and when declared by the Board of Directors, subject to the rights of holders of all classes of stock outstanding having priority rights as to dividends. There have been no dividends declared to date. The holder of each share of common stock is entitled to one vote. The Company constructively retired 414 shares of common stock during the year that were abandoned.

Shares Reserved for Future Issuance

The Company has reserved shares of common stock for future issuances as follows:

	December 31,	
	2018	2019
Series A-1 convertible preferred stock outstanding	848,595	848,595
Series B-1 convertible preferred stock outstanding	2,422,444	2,422,444
Series C-1 convertible preferred stock outstanding	3,726,974	3,726,974
Series D-1 convertible preferred stock outstanding	939,979	939,979
Series E-1 convertible preferred stock outstanding	923,049	923,049
Series F-1 convertible preferred stock outstanding	3,787,878	3,787,878
Series G-1 convertible preferred stock outstanding	—	4,934,231
Warrants to purchase Series C-1 convertible preferred stock	215,291	215,291
Convertible note*	—	—
Common stock options issued and outstanding	2,626,494	3,279,324
Common stock available for future grants	382,679	77,603

* At December 31, 2018, the conversion of the convertible notes into convertible preferred stock was dependent on the outstanding loan balance including accrued interest and the conversion stock per share price at the date of Qualified Equity Financing, Change of Control,

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Liquidation, or Prepayment Conversion (see Note 6). These factors were not estimable and the number of convertible preferred stock was not determinable. These convertible notes converted to Series G-1 convertible preferred stock in April 2019 (Note 10).

Stock Option Plan

As of December 31, 2019, the Company reserved 5,288,773 shares of its common stock under its 2000 Stock Plan (the "2000 Stock Plan") and 2010 Stock Plan (the "2010 Stock Plan" and, together with the 2000 Stock Plan, the "Stock Plans"). Options granted under the Stock Plans may be either incentive stock options or nonqualified stock options. Incentive stock options ("ISO") may be granted only to the Company employees (including officers and directors). Nonqualified stock options ("NSO") may be granted to the Company employees and consultants. As of December 31, 2018 and December 31, 2019, no shares of common stock remain available for issuance to officers, directors, employees and consultants pursuant to the 2000 Stock Plan.

Options to purchase the Company's common stock may be granted at a price not less than 100% of the fair market value in the case of ISO or NSO, except for an employee or non-employee with options who owns more than 10% of the voting power of all classes of stock of the Company in which case the exercise price shall be no less than 110% of the fair market value per share on the grant date. Fair market value is determined by the Board of Directors. Options are immediately exercisable and vest as determined by the Board of Directors ranging from immediately upon grant to a rate of 25% per annum over four years from the grant date. Options expire as determined by the Board of Directors but not more than ten years after the date of grant.

Activity under the Stock Plans is set forth below:

		Outstanding Options	
	Shares Available for Grant	Number of Shares	Weighted Average Exercise Price
Balance, January 1, 2018	125,199	2,419,948	$ 1.52
Additional shares reserved	502,179	—	—
Options granted	(255,900)	255,900	1.37
Options exercised	—	(18,153)	1.68
Options canceled[1]	11,201	(31,201)	1.53
Balance, December 31, 2018	382,679	2,626,494	$ 1.51
Additional shares reserved	738,572	—	—
Options granted	(1,078,957)	1,078,957	$ 1.93
Options exercised	—	(390,318)	1.35
Options canceled[1]	35,309	(35,809)	1.39
Balance, December 31, 2019	77,603	3,279,324	$ 1.66

(1) Canceled stock options issued under the Company's 2000 Stock Plan were canceled after the 2010 Stock Plan was approved and are not included in the shares available for grant as they were not returned to the stock option pool.

The aggregate intrinsic value of options exercised during the years ended December 31, 2018 and December 31, 2019 was less than $0.1 million and $0.2 million, respectively.

The options outstanding, exercisable and vested by exercise price at December 31, 2019 were as follows:

	Options Outstanding and Exercisable		Options Exercisable and Vested	
Exercise Price	**Number Outstanding**	**Weighted Average Remaining Contractual Life (in Years)**	**Number Exercisable and Vested**	**Weighted Average Exercise Price**
$ 1.30	306,577	7.61	239,050	$ 1.30
$ 1.40	1,257,647	6.24	917,707	$ 1.40
$ 1.50	767,488	6.05	761,958	$ 1.50
$ 1.96	56,500	0.68	56,500	$ 1.96
$ 2.00	40,906	2.59	40,907	$ 2.00
$ 2.10	670,749	9.80	27,993	$ 2.10
$ 2.40	39,908	3.67	39,908	$ 2.40
$ 2.90	119,749	4.67	119,749	$ 2.90
$ 5.00	19,800	9.89	—	$ 5.00
	3,279,324	6.85	2,203,772	

The weighted average exercise price and aggregate intrinsic value of options outstanding and exercisable at December 31, 2018 was $1.51 per share and $0.2 million, respectively. The weighted average exercise price and aggregate intrinsic value of options outstanding and exercisable at December 31, 2019 was $1.66 per share and $10.9 million, respectively. The aggregate intrinsic value is calculated as the difference between the exercise price of the underlying stock options and the fair value of the Company's common stock for stock options that were in-the-money as of December 31, 2018 and December 31, 2019.

	December 31, 2019		
	Number of Shares	**Weighted Average Exercise Price**	**Weighted Average Contractual Life (in Years)**
Options vested	2,203,772	$ 1.56	5.69
Options vested and expected to vest	3,279,324	$ 1.66	6.85

Total intrinsic value of options vested and expected to vest as of December 31, 2018 and December 31, 2019 was $0.2 million and $10.9 million, respectively.

Early Exercise of Stock Options

Under the terms of the individual option grants, all options are fully exercisable on the grant date, subject to the Company's repurchase right at the original exercise price. Accordingly, options may be exercised prior to vesting. The shares are subject to the Company's lapsing repurchase right upon termination of employment or over the options' vesting period of generally four years at the original purchase price. The proceeds initially are recorded in other liabilities from the early exercise of stock options and are reclassified to additional paid-in capital as the Company's repurchase right lapses. During the year ended December 31, 2018, the Company did not repurchase shares of common stock. During the year ended December 31, 2019, the Company repurchased 9,147 shares of common stock for less than $0.1 million. As of December 31, 2018 and December 31, 2019, 26,852 and 199,810 shares were subject to repurchase, with an aggregate exercise price of less than $0.1 million and $0.3 million, respectively, and were recorded in other current liabilities.

Stock-Based Compensation for Employees

During the years ended December 31, 2018 and December 31, 2019, the Company granted stock options to employees to purchase 255,900 and 1,058,957 shares of common stock, respectively. The weighted average grant-date fair value of the employee stock options granted during the years ended December 31, 2018 and December 31, 2019 was $0.70 and $1.79 per share, respectively.

The Company uses the Black-Scholes Merton option-pricing model to determine the fair value of stock options. The determination of the fair value of stock-based payment awards on the date of grant is affected by the stock price as well as assumptions regarding a number of complex and subjective variables. These variables include expected stock price volatility over the term of the awards, actual and projected employee stock option exercise behaviors, risk-free interest rates and expected dividends. The estimated grant date fair values of employee stock options were calculated using the following assumptions:

	Years Ended December 31,	
	2018	2019
Weighted average expected term (in years)	6.3	5.3 - 6.1
Volatility	46.0 %	47.1% - 49.7%
Risk-free interest rate	2.4%-2.9%	1.4% - 1.8%
Dividend yield	—	—

Expected Term

The expected term is calculated using the simplified method, which is available where there is insufficient historical data about exercise patterns and post-vesting employment termination behavior. The simplified method is based on the vesting period and the contractual term for each grant, or for each vesting-tranche for awards with graded vesting. The mid-point between the vesting date and the maximum contractual expiration date is used as the expected term under this method. For awards with multiple vesting-tranches, the periods from grant until the mid-point for each of the tranches are averaged to provide an overall expected term.

Volatility

The expected stock price volatility assumptions for the Company's stock options for the years ended December 31, 2018 and December 31, 2019 was determined by examining the historical volatilities for industry peers, referred to as "guideline" companies, as the Company did not have any trading history for the Company's common stock. In evaluating similarity, the Company considered factors such as industry, stage of life cycle and size.

Risk-Free Rate

The risk-free interest rate assumption is based on the U.S. Treasury instruments whose term was consistent with the expected term of the Company's stock options.

Dividend Yield

The expected dividend assumption is based on the Company's history and expectation of dividend payouts.

Fair Value of Common Stock

The fair value of the Company's common stock is determined by the board of directors with assistance from management and, in part, on input from an independent third-party valuation firm. The board of directors determines the fair value of common stock by considering a number of objective and subjective factors, including valuations of comparable companies, sales of convertible preferred stock, operating and financial performance, the lack of liquidity of the Company's common stock and the general and industry-specific economic outlook.

Stock-Based Compensation for Non-Employees

Stock-based compensation expense related to stock options granted to non-employees is recognized as the stock options are earned. The Company believes that the fair value of the stock options is more reliably measurable than the fair value of the services received. The fair value of the stock options granted to non-employees is calculated at each reporting date using the Black-Scholes Merton option-pricing model. Effective January 1, 2019, the Company accounts for shared-based awards granted to non-employees based on the fair value calculated using the Black-Scholes Merton option-pricing model on the date of grant. During the year ended December 31, 2018, the Company did not grant stock options to non-employees. During the year ended December 31, 2019, the Company granted 20,000 shares of stock options to non-employees. The weighted average grant-date fair value of the non-employee stock options granted during the year ended December 31, 2019 was $0.75 per share.

The estimated grant date fair values of non-employee stock options granted during the year ended December 31, 2019 was calculated using the following assumptions:

Weighted average expected term (in years)	5.0 - 5.3
Volatility	47.1% - 47.3%
Risk-free interest rate	1.8%
Dividend yield	—

Stock-based compensation expense on options granted to non-employees for the years ended December 31, 2018 and December 31, 2019 was less than $0.1 million.

Total Stock-Based Compensation

Stock-based compensation expense is reflected in the statements of operations and comprehensive loss as follows (in thousands):

	Years Ended December 31,	
	2018	2019
Cost of goods sold	$ 18	$ 30
Research and development	62	64
Selling, general and administrative	286	270
Total	$ 366	$ 364

As of December 31, 2019, there was $1.9 million of unrecognized compensation costs related to non-vested common stock options, expected to be recognized over a weighted-average period of 2.29 years, respectively. The total grant date fair value of shares vested during the years ended December 31, 2018 and December 31, 2019 was $0.4 million and $0.3 million, respectively.

12. Net Loss per Share Attributable to Common Stockholders

The following table sets forth the computation of basic and diluted net loss per share attributable to common stockholders which excludes shares which are legally outstanding, but subject to repurchase by the Company (in thousands, except share and per share amounts):

	Years Ended December 31,	
	2018	2019
Numerator		
Net loss attributable to common stockholders	$ (18,479)	$ (20,703)
Denominator		
Weighted-average common stock outstanding	1,706,654	1,796,233
Less: weighted-average common shares subject to repurchase	(31,875)	(20,123)
Weighted-average common shares used to compute basic and diluted net loss per share	1,674,779	1,776,110
Net loss per share attributable to common stockholders, basic and diluted	$ (11.03)	$ (11.66)

The following potentially dilutive securities outstanding have been excluded from the computation of diluted weighted average shares outstanding because such securities have an antidilutive impact due to the Company's net loss, in common stock equivalent shares:

	Years Ended December 31,	
	2018	2019
Convertible preferred stock	12,648,919	17,583,150
Convertible preferred stock warrants	215,291	215,291
Options to purchase common stock	2,626,494	3,279,324
Unvested early exercised common stock options	26,852	199,810
Conversion of convertible notes*	—	—

* At December 31, 2018, the conversion of the convertible notes into convertible preferred stock was dependent on the outstanding loan balance including accrued interest and the conversion stock per share price at the date of Qualified Equity Financing, Change of Control, Liquidation, or Prepayment Conversion (see Note 6). These factors were not estimable and the number of convertible preferred stock was not determinable. These convertible notes converted to Series G-1 convertible preferred in April 2019 (Note 10).

Unaudited Pro Forma Net Loss per Share Attributable to Common Stockholders

Unaudited pro forma basic and diluted net loss per share attributable to common stockholders are computed as follows (in thousands, except share and per share data):

	Year ended December 31, 2019
	(unaudited)
Numerator	
Net loss attributable to common stockholders, basic and diluted	$ (20,703)
Adjust: Change in fair value of convertible preferred stock warrant liability	(12)
Pro forma net loss attributable to common stockholders, basic and diluted	$ (20,715)
Denominator	
Weighted-average common shares outstanding, basic and diluted	1,776,110
Adjust: Conversion of convertible preferred stock	16,143,774
Adjust: Conversion of convertible preferred stock warrants	213,876
Weighted-average shares used in computing pro forma net loss per share, basic and diluted	18,133,760
Pro forma net loss per share attributable to common stockholders, basic and diluted	$ (1.14)

13. Segment Information

The chief operating decision maker for the Company is the Chief Executive Officer. The Company's Chief Executive Officer reviews financial information presented on a consolidated basis, accompanied by information about revenue by geographic region, for purposes of allocating resources and evaluating financial performance. The Company has one business activity and there are no segment managers who are held accountable for operations, operating results or plans for levels or components below the consolidated unit level. Accordingly, the Company has determined that it has a single reportable and operating segment structure. The Company's Chief Executive Officer evaluates performance based primarily on revenue in the geographic locations in which the Company operates.

Revenue by geographic area is based on the billing address of the customer. The following table sets forth our revenue by geographic area (in thousands):

	Years Ended December 31,	
	2018	2019
Europe, Middle-East and Africa ("EMEA")	$ 16,175	$ 18,364
Asia Pacific	3,115	3,227
Other International	151	300
United States	563	10,704
Total	$ 20,004	$ 32,595

Long-lived assets by geographic area are based on physical location of those assets. The following table sets forth our long-lived assets by geographic area (in thousands):

	December 31,	
	2018	2019
United States	$ 322	$ 852
EMEA	37	40
Asia Pacific	16	10
Total	$ 375	$ 902

14. Employee Benefit Plan

Effective October 1997, the Company implemented a retirement savings plan (the “Savings Plan”) which is intended to qualify as a deferred savings plan under Section 401(k) of the Internal Revenue Code. Participants are allowed to contribute up to 100% of the total compensation, not to exceed the amount allowed by the applicable statutory prescribed limit. There have been no contributions made to the Savings Plan by the Company since inception.

15. Related Parties

Since October 2013, the Company has received services from the chairman of a subsidiary of the Company. During 2014, this person served as Interim CEO and was appointed to the Board of Directors of the Company. Amounts paid related to consulting services for the years ended December 31, 2018 and December 31, 2019 was \$0.1 million and \$0.1 million, respectively.

See Note 6 for details regarding the Company’s Second Lien Loan and Security Agreement with Boston Scientific Corporation.

16. Subsequent Events

On February 20, 2020, the Company executed a Loan and Security Agreement (the CIBC Agreement) with Canadian Imperial Bank of Commerce (CIBC) to raise up to $32.0 million in debt financing consisting of $17.0 million advanced at the closing of the agreement (Tranche A), with the option to draw up to an additional $8.0 million (Tranche B) on or before February 20, 2022. The term loan provides for an additional financing tranche (Tranche C) of up to $7.0 million on or prior to February 20, 2022, which is conditioned upon achieving a trailing six-month revenue of at least $20.0 million as of the date of any Tranche C borrowing. The availability of Tranche B and Tranche C is further conditioned upon the joining of PulmonX International Sàrl to the CIBC Agreement and the execution by PulmonX International Sàrl of Swiss-law collateral documentation in favor of CIBC.

The loan will mature in 60 months. Equal monthly principal payments will begin after a 24-month interest only grace period. The interest only grace period can extended to 36 months if we achieve three-month trailing revenue of at least $20 million as of February 20, 2022.

The loan bears interest at a floating rate equal to 1.0% above the Wall Street Journal Prime Rate at any time. The loan is collateralized by substantially all of the Company's assets, including cash and cash equivalents, accounts receivable, intellectual property and equipment. The Company may prepay the loan, subject to certain requirements. The CIBC Agreement includes customary restrictive covenants, financial covenants, events of default and other customary terms and conditions.

In February 2020, the Company repaid its entire obligation under the term loan agreement with Oxford Finance LLC amounting to $17.3 million, including outstanding loan amount of $15.0 million, final payment of $1.3 million, amendment fees of $0.9 million and accrued interest of $0.1 million.

In January 2020, the Company terminated the Second Lien Loan and Security Agreement with Boston Scientific Corporation (Note 6).

In January and February 2020, warrants to purchase 213,876 shares of Series C-1 convertible preferred stock were cash exercised at an exercise price of $10.57 per share, yielding $2.3 million cash proceeds and warrants to purchase 1,415 shares of Series C-1 convertible preferred stock warrants expired.

Management has evaluated all transactions and events through February 21, 2020, the date which these consolidated financial statements were available to be issued.

Pulmonx Corporation

Condensed Consolidated Balance Sheets

(in thousands, except share and per share amounts)
(unaudited)

	December 31, 2019	June 30, 2020	Pro forma June 30, 2020 (unaudited)
Assets			
Current assets			
Cash and cash equivalents	$ 14,767	$ 43,347	$ 43,347
Restricted cash	—	231	231
Short-term marketable securities	13,580	—	—
Accounts receivable, net	5,511	2,645	2,645
Inventory	5,612	8,440	8,440
Prepaid expenses and other current assets	1,601	1,161	1,161
Total current assets	41,071	55,824	55,824
Property and equipment, net	902	914	914
Goodwill	2,333	2,333	2,333
Intangible assets, net	524	462	462
Deferred offering costs	1,563	—	—
Right of use assets	6,561	6,777	6,777
Other long-term assets	579	411	411
Total assets	$ 53,533	$ 66,721	$ 66,721
Liabilities, Convertible Preferred Stock and Stockholders' Deficit			
Current liabilities			
Accounts payable	$ 2,681	$ 999	$ 999
Accrued liabilities	9,463	5,351	5,000
Income taxes payable	233	140	140
Deferred revenue	173	50	50
Current lease liabilities	446	1,311	1,311
Derivative liabilities	1,165	1,055	1,055
Total current liabilities	14,161	8,906	8,555
Deferred tax liability	43	64	64
Long-term lease liabilities	6,403	6,057	6,057
Credit agreement	—	527	527
Term loan	14,965	16,723	16,723
Convertible notes	—	29,310	—
Derivative liabilities, non current	—	3,300	—
Total liabilities	35,572	64,887	31,926
Commitments and contingencies (Note 7)			

Convertible preferred stock, $0.001 par value, 177,985,811 and 228,743,387 shares authorized as of December 31, 2019 and June 30, 2020; 17,583,150 and 17,797,026 shares issued and outstanding as of December 31, 2019 and June 30, 2020; liquidation value of $210,610 and $212,870 as of December 31, 2019 and June 30, 2020 (Note 11); no shares issued and outstanding, pro forma	205,339	207,599	—
Stockholders' (deficit) equity			
Common stock, $0.001 par value, 240,000,000 shares and 300,000,000 shares authorized as of December 31, 2019 and June 30, 2020; 2,100,203 and 2,108,292 shares issued and outstanding as of December 31, 2019 and June 30, 2020; 22,580,305 shares issued and outstanding, pro forma (unaudited);	2	2	22
Additional paid-in capital	21,750	22,195	269,010
Accumulated other comprehensive income	1,373	1,615	1,615
Accumulated deficit	(210,503)	(229,577)	(235,852)
Total stockholders' (deficit) equity	(187,378)	(205,765)	34,795
Total liabilities, convertible preferred stock and stockholders' (deficit) equity	$ 53,533	$ 66,721	$ 66,721

The accompanying notes are an integral part of these unaudited interim condensed consolidated financial statements.

Pulmonx Corporation

Condensed Consolidated Statements of Operations and Comprehensive Loss

(in thousands, except share and per share amounts)
(unaudited)

	Six Months Ended June 30,	
	2019	2020
Revenue	$ 13,144	$ 12,291
Cost of goods sold	4,474	5,629
Gross profit	8,670	6,662
Operating expenses		
Research and development	3,047	2,991
Selling, general and administrative	15,558	21,301
Total operating expenses	18,605	24,292
Loss from operations	(9,935)	(17,630)
Interest income	143	89
Interest expense	(1,407)	(1,811)
Other income (expense), net	(373)	421
Net loss before tax	(11,572)	(18,931)
Income tax expense	127	143
Net loss	(11,699)	(19,074)
Other comprehensive income		
Currency translation adjustment	56	248
Change in unrealized losses on marketable securities	—	(6)
Total other comprehensive income	56	242
Comprehensive loss	$ (11,643)	$ (18,832)
Net loss per share attributable to common stockholders, basic and diluted	$ (6.85)	$ (9.93)
Weighted-average shares used in computing net loss per share attributable to common stockholders, basic and diluted	1,709,097	1,921,073
Pro forma net loss per share attributable to common stockholders, basic and diluted		$ (0.91)
Weighted-average shares used in computing pro forma net loss per share, basic and diluted		20,804,441

The accompanying notes are an integral part of these unaudited interim condensed consolidated financial statements.

Pulmonx Corporation

Condensed Consolidated Statements of Convertible Preferred Stock and Stockholders' Deficit

(in thousands, except share amounts)
(unaudited)

	Convertible Preferred Stock		Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Income	Accumulated Deficit	Total Stockholders' Deficit
	Shares	Amount	Shares	Amount				
Balances at January 1, 2019	12,648,919	$ 140,535	1,719,446	$ 2	$ 21,139	$ 1,333	$ (189,800)	$ (167,326)
Issuance of Series G-1 convertible preferred stock, net of issuance costs of $329	4,934,231	64,804	—	—	—	—	—	—
Issuance of common stock upon exercise of stock options	—	—	40,828	—	58	—	—	58
Change in shares subject to repurchase	—	—	—	—	(2)	—	—	(2)
Repurchase of early exercised common stock options	—	—	(812)	—	—	—	—	—
Common stock retired during the year for no consideration	—	—	(414)	—	—	—	—	—
Stock-based compensation expense	—	—	—	—	125	—	—	125
Currency translation adjustment	—	—	—	—	—	56	—	56
Net loss	—	—	—	—	—	—	(11,699)	(11,699)
Balances at June 30, 2019	17,583,150	$ 205,339	1,759,048	$ 2	$ 21,320	$ 1,389	$ (201,499)	$ (178,788)

	Convertible Preferred Stock		Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Income	Accumulated Deficit	Total Stockholders' Deficit
	Shares	Amount	Shares	Amount				
Balances at January 1, 2020	17,583,150	$ 205,339	2,100,203	$ 2	$ 21,750	$ 1,373	$ (210,503)	$ (187,378)
Issuance of Series C-1 convertible preferred stock upon exercise of warrants	213,876	2,260	—	—	—	—	—	—
Issuance of common stock upon exercise of stock options	—	—	8,089	—	12	—	—	12
Change in shares subject to repurchase	—	—	—	—	65	—	—	65
Stock-based compensation expense	—	—	—	—	368	—	—	368
Currency translation adjustment	—	—	—	—	—	248	—	248
Change in unrealized (losses) gains on marketable securities	—	—	—	—	—	(6)	—	(6)
Net loss	—	—	—	—	—	—	(19,074)	(19,074)
Balances at June 30, 2020	17,797,026	$ 207,599	2,108,292	$ 2	$ 22,195	$ 1,615	$ (229,577)	$ (205,765)

The accompanying notes are an integral part of these unaudited interim condensed consolidated financial statements.

Pulmonx Corporation

Condensed Consolidated Statements of Cash Flows

(in thousands)
(unaudited)

	Six Months Ended June 30,	
	2019	2020
Cash flows from operating activities		
Net loss	$ (11,699)	$ (19,074)
Adjustments to reconcile net loss to net cash used in operating activities		
Stock-based compensation expense	125	368
Change in fair value of convertible preferred stock warrant liability	(11)	—
Change in fair value of derivative liabilities	298	(710)
Allowance for doubtful accounts	(7)	(7)
Inventory write-downs	191	282
Depreciation and amortization expense	158	233
Amortization of debt discount and debt issuance costs	20	416
Write-off of deferred offering costs	—	3,030
Amortization of premiums and discounts on short-term marketable securities	—	(35)
Gain on extinguishment of convertible note	(32)	—
Non-cash lease expense	361	520
Net changes in operating assets and liabilities:		
Accounts receivable	(1,898)	2,919
Inventory	(1,340)	(3,054)
Prepaid expenses and other current assets	234	271
Other assets	3	184
Accounts payable	274	(769)
Accrued liabilities	602	(1,698)
Income taxes payable	15	(97)
Lease liabilities	(404)	(216)
Deferred tax liability	(20)	20
Deferred revenue	79	(125)
Net cash used in operating activities	(13,051)	(17,542)
Cash flows from investing activities		
Maturities of short-term marketable securities	—	13,605
Purchases of property and equipment	(156)	(142)
Net cash provided by (used in) investing activities	(156)	13,463
Cash flows from financing activities		
Proceeds from borrowing under term loans, net of payment of lender fees and costs	—	16,764
Proceeds from Credit Agreement	—	527
Repayment of term loans	—	(17,248)
Proceeds from the issuance of convertible note, net of payment of lender fees and costs (includes $6,000 and $0 from related party for the six months ended June 30, 2019 and June 30, 2020, respectively)	6,000	32,950
Proceeds from Paycheck Protection Program loan	—	2,666
Repayment of Paycheck Protection Program loan	—	(2,666)
Debt issuance cost	—	(162)
Payments of deferred offering costs	—	(2,462)
Proceeds from issuance of Series G-1 convertible preferred stock, net of issuance costs of $329	39,671	—
Proceeds from exercise of warrants for Series C-1 convertible preferred stock	—	2,261
Proceeds from exercise of common stock options	58	77
Payments for the repurchase of early exercised common stock options	(1)	—
Net cash provided by financing activities	45,728	32,707

Effect of exchange rate changes on cash and cash equivalents		17		183
Net increase in cash and cash equivalents		32,538		28,811
Cash, cash equivalents and restricted cash, at beginning of the period		4,124		14,767
Cash, cash equivalents and restricted cash, at end of the period	$	36,662	$	43,578
Reconciliation of cash, cash equivalents and restricted cash to consolidated balance sheets:				
Cash and cash equivalents		36,662		43,347
Restricted cash		—		231
Cash, cash equivalents and restricted cash in consolidated balance sheets	$	36,662	$	43,578
Supplemental non-cash items:				
Increase (lapse) in repurchase rights of common stock	$	(2)	$	65
Purchases of property and equipment in accounts payable	$	—	$	24
Accrued interest for convertible note	$	496	$	351
Issuance of derivative instrument related to convertible notes	$	—	$	3,900
Conversion of convertible note into Series G-1 convertible preferred stock	$	25,133	$	—
Operating lease right of use asset recorded on the adoption of ASC 842	$	1,181	$	—
Operating lease right of use assets obtained in exchange for new lease liabilities	$	—	$	735
Supplemental disclosure of cash flow information:				
Cash paid for income taxes	$	147	$	91
Cash paid for interest	$	708	$	2,698

The accompanying notes are an integral part of these unaudited interim condensed consolidated financial statements.

1. Formation and Business of the Company

The Company

Pulmonx Corporation (the “Company”) was incorporated in the state of California in December 1995 as Pulmonx and reincorporated in the state of Delaware in December 2013. The Company is a commercial-stage medical technology company that provides a minimally invasive treatment for patients with severe emphysema, a form of chronic obstructive pulmonary disease (COPD). The Company’s solution, which is comprised of the Zephyr Endobronchial Valve (Zephyr Valve), the Chartis Pulmonary Assessment System (Chartis System) and the StratX Lung Analysis Platform (StratX Platform), is designed to treat a broad pool of patients for whom medical management has reached its limits and either do not want or are ineligible for surgical approaches. The Company has subsidiaries in the Cayman Islands, Germany, Switzerland, Australia, the United Kingdom, the Netherlands, Italy, France and Hong Kong.

Liquidity and Going Concern

The Company has incurred operating losses and negative cash flows from operations to date and has an accumulated deficit of $229.6 million as of June 30, 2020. During the six months ended June 30, 2019 and June 30, 2020, the Company used $13.1 million and $17.5 million of cash in its operating activities, respectively. As of June 30, 2020, the Company had cash and cash equivalents of $43.3 million. Historically, the Company’s activities have been financed through private placements of equity securities and debt. The Company’s history of recurring losses, negative cash flows since inception and the need to raise additional funding to finance its operations raise substantial doubt about Company’s ability to continue as a going concern. The Company’s ability to continue as a going concern requires that the Company obtains sufficient funding to finance its operations. In the event the Company does not complete an IPO, the Company plans to continue to fund its operations and capital funding needs through a combination of private equity offerings, debt financings and other sources, including potential collaborations, licenses and other similar arrangements. If the Company is not able to secure adequate additional funding when needed, the Company will need to reevaluate its operating plan and may be forced to make reductions in spending, extend payment terms with suppliers, liquidate assets where possible, or suspend or curtail planned programs or cease operations entirely. These actions could materially impact the Company’s business, results of operations and future prospects. There can be no assurance as to the availability or terms upon which such financing and capital might be available in the future. Having insufficient funds may also require the Company to delay, scale back or eliminate some or all of its development programs or relinquish rights to its technology on less favorable terms than it would otherwise choose. The foregoing actions and circumstances could materially impact the Company’s business, results of operations and future prospects.

Therefore, there is substantial doubt about the entity’s ability to continue as a going concern within one year after the date that the financial statements are issued. The accompanying consolidated financial statements have been prepared assuming the Company will continue to operate as a going concern, which contemplates the realization of assets and settlement of liabilities in the normal course of business. They do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classifications of liabilities that may result from uncertainty related to its ability to continue as a going concern.

Impact of the COVID-19 Pandemic

The Company has been actively monitoring the novel coronavirus, or COVID-19, situation and its impact. In response to the pandemic, numerous state and local jurisdictions have imposed “shelter-in-place” orders, quarantines and other restrictions. In the United States, governmental authorities have recommended, and in certain cases required, that elective, specialty and other procedures and appointments, be suspended or canceled. Similarly, in March 2020, the governor of California, where the Company’s headquarters are located, issued “stay at home” orders limiting non-essential activities, travel and business operations. Such orders or restrictions have resulted in reduced operations at the Company’s headquarters (including our manufacturing facility), work stoppages, slowdowns and delays, travel restrictions and cancellation of events and have restricted the efforts of our sales representatives, thereby significantly and negatively impacting our operations. These orders and restrictions have significantly decreased the number of procedures performed using the Company's products and otherwise negatively impacted sales and operations.

The COVID-19 pandemic has negatively impacted our business, financial condition and results of operations by decreasing and delaying substantially all procedures performed using our products, and we expect the pandemic to continue to negatively impact our business, financial condition and results of operations.

2. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying consolidated financial statements have been prepared using accounting principles generally accepted in the United States of America ("GAAP").

Reverse Stock Split

On September 22, 2020, the Company effected a 1-for-10 reverse stock split of the Company's common stock and convertible preferred stock. The par value and authorized shares of common stock were not adjusted as a result of the reverse stock split. All issued and outstanding common stock, convertible preferred stock, stock options and per share amounts contained in the accompanying financial statements and notes to the financial statements have been retroactively adjusted to give effect to the reverse stock split for all periods presented.

Principles of Consolidation

The consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries. All intercompany balances and transactions have been eliminated in consolidation.

Unaudited Interim Financial Information

The accompanying condensed consolidated balance sheet as of June 30, 2020, the condensed consolidated statements of operations and comprehensive loss, the condensed consolidated statements of convertible preferred stock and stockholders' deficit and condensed consolidated statements of cash flows for the six months ended June 30, 2019 and 2020 are unaudited. The unaudited interim condensed consolidated financial statements have been prepared on the same basis as the audited annual financial statements and, in the opinion of management, reflect all adjustments, which include only normal recurring adjustments, necessary for the fair statement of the Company's financial position as of June 30, 2020 and the results of its operations and its cash flows for the six months ended June 30, 2019 and 2020. The financial data and other information disclosed in these notes related to the six months ended June 30, 2019 and 2020 are also unaudited. The results for the six months ended June 30, 2020 are not necessarily indicative of results to be expected for the year ending December 31, 2020, any other interim periods, or any future year or period. The balance sheet as of December 31, 2019 included herein was derived from the audited consolidated financial statements as of that date. Certain disclosures have been condensed or omitted from the interim condensed consolidated financial statements. These unaudited interim condensed consolidated financial statements should be read in conjunction with the audited annual consolidated financial statements and related notes.

Unaudited Pro Forma Information

The unaudited pro forma information as of June 30, 2020 has been prepared to give effect to (1) the automatic conversion of all shares of the outstanding convertible preferred stock into 17,856,229 shares of common stock which will occur immediately upon the consummation of the Company's Qualified IPO (as defined in Note 1); (2) the assumed conversion of the $33.0 million aggregate outstanding principal amount of the 2020 Notes and $0.4 million accrued interest through June 30, 2020 on the 2020 Notes into 2,615,784 shares of the Company's common stock at a conversion price of $12.75 per share; (3) the reclassification of the derivative instrument upon the conversion of the 2020 Notes and the estimated $3.3 million credit to additional paid in capital, (4) a charge of $6.3

million to the accumulated deficit with a corresponding credit to additional paid in capital due to the loss on extinguishment of 2020 Notes (assuming an initial public offering price of $15.00 per share, which is the midpoint of the range reflected on the cover of this prospectus), and (5) the filing of the Company's amended and restated certificate of incorporation in connection with the closing of this offering. The unaudited pro forma information does not assume any proceeds from, or the issuance of shares, in the Qualified IPO. Upon a Qualified IPO, the outstanding 2020 Notes and any unpaid accrued interest shall automatically convert in whole into shares of the Company's common stock at a conversion price equal to the lesser of (i) price per share paid for common stock in the Qualified IPO multiplied by either 85% if the conversion takes place within 18 months of the Initial Closing, or 80% otherwise, and (ii) $13.20 per share (Note 6). For the purposes of the unaudited proforma information, the Company has assumed that the 2020 Notes will convert at $12.75 per share, which is 85% of the assumed initial public offering price of $15.00 per share.

The unaudited pro forma basic and diluted net loss per share has been computed to give effect to (1) an adjustment to the denominator in the pro forma basic and diluted net loss per share calculation for the automatic conversion of the convertible preferred stock into shares of common stock as of January 1, 2019 or the date of issuance, if later, (2) an adjustment to the denominator in the pro forma basic and diluted net loss per share calculation to reflect the 2,588,235 shares of common stock related to the 2020 Notes assuming the conversion of $33.0 million principal amount at a conversion price of $12.75 per share, all as of the beginning of the respective period or the date of issuance, if later, and (3) an adjustment to the numerator in the pro forma basic and diluted net loss per share calculation to (a) remove the effect of the interest expense as it relates to the 2020 Notes and (b) remove gains or losses resulting from the remeasurement of the fair value of the 2020 Notes derivative liability.

Use of Estimates

The preparation of consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting periods. Although these estimates are based on the Company's knowledge of current events and actions it may undertake in the future, actual results may ultimately materially differ from these estimates and assumptions.

Significant estimates and assumptions include reserves and write-downs related to inventories, the recoverability of long term assets, valuation of equity instruments and equity-linked instruments, valuation of common stock, stock-based compensation, valuation of the convertible preferred stock warrant liability and derivative liability, intangible assets, goodwill, debt and related features, deferred tax assets and related valuation allowances and impact of contingencies.

Fair Value of Financial Instruments

The carrying amounts of the Company's financial instruments consisting of cash and cash equivalents, accounts receivable, accounts payable and accrued liabilities approximate fair value due to their relatively short maturities. The convertible preferred stock warrant liability and derivative liability are carried at fair value based on unobservable market inputs. Based on the borrowing rates currently available to the Company for debt with similar terms and consideration of default and credit risk, the carrying value of the term loan and convertible note approximates their fair value. The fair value of marketable debt securities is estimated using Level 2 inputs based on their quoted market values (Note 4).

Concentration of Credit Risk

Financial instruments that potentially subject the Company to concentrations of risk consist principally of cash, cash equivalents and accounts receivable. The Company maintains its cash and cash equivalents balances with established financial institutions and, at times, such balances with any one financial institution may be in excess of the Federal Deposit Insurance Corporation ("FDIC") insured limits. As of December 31, 2019 and June 30, 2020, the Company also had cash on deposit with foreign banks of approximately $5.2 million and $4.9 million, respectively, that was not federally insured.

The Company earns revenue from the sale of its products to distributors and other customers such as hospitals. Sales of Zephyr Valves and delivery catheters accounted for most of the Company's revenue for the six months ended June 30, 2019 and 2020. The Company's accounts receivable are derived from revenue earned from distributors and customers. The Company performs ongoing credit evaluations of its customers' and distributors' financial condition and generally requires no collateral from its customers and distributors. At December 31, 2019 and June 30, 2020, no customer or distributor accounted for more than 10% of accounts receivable or revenue.

The Company relies on single source suppliers for the components, sub-assemblies and materials for its products. These components, sub-assemblies and materials are critical and there are no or relatively few alternative sources of supply. The Company's suppliers have generally met the Company's demand for their products and services on a timely basis in the past.

Deferred Offering Costs

Deferred offering costs, consisting of legal, accounting and other fees and costs relating to the Company's planned IPO, are capitalized and recorded on the balance sheet. The deferred offering costs will be offset against the proceeds received upon the closing of the planned IPO. In the event that the Company's plans for an IPO are terminated, all of the deferred offering costs will be written off within operating expenses in the Company's statements of operations and comprehensive loss. As of December 31, 2019, $1.6 million of deferred offering costs were recorded on the consolidated balance sheet. During the six months ended June 30, 2020, the Company wrote off deferred offering costs of $3.0 million as, in May 2020, the Company withdrew its registration statement that was filed with the SEC in February 2020. There were no deferred offering costs capitalized as of June 30, 2020.

Foreign Currency Translation and Transaction Gains and Losses

The functional currencies of the Company's wholly owned subsidiaries in the Cayman Islands and the Netherlands are the U.S. dollar. The functional currencies of the Company's wholly owned subsidiaries in Switzerland, Germany, Australia, the United Kingdom, France and Hong Kong are the Swiss franc. The functional currency of the Company's subsidiary in Italy is the Euro. Accordingly, asset and liability accounts of Switzerland, Germany, Australia, the United Kingdom, Italy and Hong Kong operations are translated into U.S. dollars using the current exchange rate in effect at the balance sheet date and equity accounts are translated into U.S. dollars using historical rates. The revenues and expenses are translated using the average exchange rates in effect during the period, and gains and losses from foreign currency translation adjustments are included as a component of accumulated other comprehensive income in the consolidated balance sheet. Foreign currency translation adjustments are recorded in other comprehensive income (loss) in the consolidated statements of operations and comprehensive loss and was $0.1 million and $0.2 million during the six months ended June 30, 2019 and 2020, respectively.

Foreign currency transaction gains and losses are included in other income (expense), net in the consolidated statements of operations and comprehensive loss and was $0.1 million and $0.3 million during the six months ended June 30, 2019 and 2020, respectively.

Net Loss per Share Attributable to Common Stockholders

Basic net loss per common share is calculated by dividing the net loss attributable to common stockholders by the weighted-average number of common stock outstanding during the period, without consideration of potentially dilutive securities. Diluted net loss per share is computed by dividing the net loss attributable to common stockholders by the weighted-average number of common stock and potentially dilutive securities outstanding for the period. For purposes of the diluted net loss per share calculation, convertible preferred stock, stock options, common stock subject to repurchase related to early exercise of stock options, convertible preferred stock warrants and convertible note are considered to be potentially dilutive securities. Basic and diluted net loss attributable to common stockholders per share is presented in conformity with the two-class method required for participating securities as the convertible preferred stock is considered a participating security because it participates in dividends with common stock. The Company also considers the shares issued upon the early exercise of stock options subject to repurchase to be participating securities, because holders of such shares have non-forfeitable dividend rights in the event a dividend is paid on common stock. The holders of all series of convertible preferred stock and the holders of the shares issued upon early exercise of stock options subject to repurchase do not have a contractual obligation to share in the Company's losses. As such, the net loss was attributed entirely to common stockholders. Because the Company has reported a net loss for all periods presented, diluted net loss per common share is the same as basic net loss per common share for those periods.

3. Recent Accounting Pronouncements

Recently Adopted Accounting Pronouncements

In August 2018, FASB issued ASU 2018-13, *Fair Value Measurement (Topic 820), Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement*. This ASU amends the disclosure requirement in ASC 820, *Fair Value Measurement*, by adding, changing or removing certain disclosures. This ASU applies to all entities that are required under this guidance to provide disclosure about recurring or nonrecurring fair value measurements. The amendments require new disclosures related to: changes in unrealized gains and losses for the period included in other comprehensive income for recurring Level 3 fair value measurements held at the end of the reporting period; range and weighted-average of significant unobservable inputs used to develop Level 3 fair value measurements. In addition, there are certain changes in disclosure requirements in the existing guidance. For all entities, this ASU is effective for fiscal years beginning after December 15, 2019, and interim periods within those fiscal years. Early adoption is permitted. The Company adopted ASU 2018-13 as of January 1, 2020 and the adoption had no material impact on the Company's consolidated financial statements.

In January 2017, the FASB issued ASU 2017-04, *Intangibles – Goodwill and Other: Simplifying the Test for Goodwill Impairment*. The amendments eliminate Step 2 from the goodwill impairment test. The annual, or interim, goodwill impairment test is performed by comparing the fair value of a reporting unit with its carrying amount. An impairment charge should be recognized for the amount by which the carrying amount exceeds the reporting unit's fair value; however, the loss recognized should not exceed the total amount of goodwill allocated to that reporting unit. In addition, income tax effects from any tax deductible goodwill on the carrying amount of the reporting unit should be considered when measuring the goodwill impairment loss, if applicable. The amendments also eliminate the requirements for any reporting unit with a zero or negative carrying amount to perform a qualitative assessment and, if it fails that qualitative test, to perform Step 2 of the goodwill impairment test. An entity still has the option to perform the qualitative assessment for a reporting unit to determine if the quantitative impairment test is necessary. This ASU is effective for public business entities for its annual or any interim goodwill impairment tests in fiscal years beginning after December 15, 2019. Early adoption is permitted. The Company adopted ASU 2017-04 as of January 1, 2020 and the adoption had no material impact on the Company's consolidated financial statements.

Recent Accounting Pronouncements Not Yet Adopted

In March 2020, the FASB issued ASU No. 2020-04, Reference Rate Reform (Topic 848) ("ASU 2020-04"). The amendments in ASU 2020-04 provide optional expedients and exceptions for applying generally accepted accounting principles to contracts, hedging relationships, and other transactions affected by reference rate reform if certain criteria are met. The amendments in ASU 2020-04 are effective for all entities as of March 12, 2020 through December 31, 2022. An entity may elect to apply the amendments for contract modifications by Topic or Industry Subtopic as of any date from the beginning an interim period that includes or is subsequent to March 12, 2020, or prospectively from the date that the financial statements are available to be issued. Once elected for a Topic or an Industry Subtopic, the amendments must be applied prospectively for all eligible contract modifications for that Topic or Industry Subtopic. The Company may elect to apply ASU 2020-04 as its contracts referenced in London Interbank Offered Rate ("LIBOR") are impacted by reference rate reform. The Company is currently evaluating the impact of the adoption of this ASU on the Company's consolidated financial statements.

In August 2020, the FASB issued ASU No. 2020-06, Debt—Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging—Contracts in Entity's Own Equity (Subtopic 815-40)—Accounting For Convertible Instruments and Contracts in an Entity's Own Equity (“ASU 2020-06”). ASU 2020-06 simplifies accounting for convertible instruments by removing major separation models required under current GAAP. Consequently, more convertible debt instruments will be reported as a single liability instrument with no separate accounting for embedded conversion features. ASU 2020-06 removes certain settlement conditions that are required for equity contracts to qualify for the derivative scope exception, which will permit more equity contracts to qualify for it. ASU 2020-06 also simplifies the diluted net income per share calculation in certain areas. This ASU is effective for public business entities for fiscal years beginning after December 15, 2021, and interim periods within those fiscal years, with early adoption permitted for fiscal years beginning after December 15, 2020, and interim periods within those fiscal years. The Company is currently evaluating the impact of the adoption of this principle on the Company’s consolidated financial statements.

In December 2019, the FASB issued ASU 2019-12, *Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes*, which is intended to simplify various aspects related to accounting for income taxes. ASU 2019-12 removes certain exceptions to the general principles in Topic 740 and also clarifies and amends existing guidance to improve consistent application. This ASU is effective for public business entities for fiscal years beginning after December 15, 2020, and interim periods within those fiscal years. The Company is currently evaluating the impact of the adoption of ASU 2019-12 on the Company’s consolidated financial statements.

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments – Credit Losses*. This new guidance will require financial instruments to be measured at amortized cost, and trade accounts receivable to be presented at the net amount expected to be collected. The new model requires an entity to estimate credit losses based on historical information, current information and reasonable and supportable forecasts, including estimates of prepayments. In November 2019, the FASB issued ASU 2019-10, according to which, the new standard is effective for public business entities that meet the definition of an SEC filer, excluding entities eligible to be smaller reporting companies (“SRC”) as defined by the SEC, for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years. For all other entities , the new standard is effective for fiscal years beginning after December 15, 2022, and interim periods within that fiscal year. Early adoption is permitted. The Company is a SRC for fiscal year 2019 and 2020. The Company is currently evaluating the impact of the new standard on the Company’s consolidated financial statements.

4. Fair Value Measurements

Assets and liabilities recorded at fair value in the consolidated financial statements are categorized based upon the level of judgment associated with the inputs used to measure their fair value. Hierarchical levels which are directly related to the amount of subjectivity associated with the inputs to the valuation of these assets or liabilities are as follows:

Level 1 – Inputs are unadjusted quoted prices in active markets for identical assets or liabilities that the Company has the ability to access as of the measurement date.

Level 2 – Inputs are observable, unadjusted quoted prices in active markets for similar assets or liabilities, unadjusted quoted prices for identical or similar assets or liabilities in markets that are not active or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the related assets or liabilities;

Level 3 – Unobservable inputs for the asset or liability only used when there is little, if any, market activity for the asset or liability at the measurement date. This hierarchy requires the Company to use observable market data, when available, and to minimize the use of unobservable inputs when determining fair value.

Assets and Liabilities Measured and Recorded at Fair Value on a Recurring Basis – Financial assets and liabilities held by the Company measured at fair value on a recurring basis include money market funds, short-term marketable securities, convertible preferred stock warrant liability and derivative liability.

Assets and Liabilities Measured and Recorded at Fair Value on a Nonrecurring Basis – The Company determines the fair value of long-lived assets held and used, such as intangible assets, by reference to independent appraisals, quoted market prices (e.g. an offer to purchase) and other factors. An impairment charge is recorded when the carrying value of the asset exceeds its fair value. As noted above, there have been no impairment charges recorded to date. Based on the borrowing rates currently available to the Company for debt with similar terms and consideration of default and credit risk, the carrying value of the term loan and convertible notes approximates their fair value and is classified as a Level 2 liability.

Assets and liabilities measured at fair value are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. The Company's assessment of the significance of a particular input to the fair value measurement in its entirety requires management to make judgments and consider factors specific to the asset or liability.

The following tables summarizes the types of assets and liabilities measured at fair value on a recurring basis by level within the fair value hierarchy (in thousands):

	December 31, 2019			
	Level 1	Level 2	Level 3	Total
Assets:				
Money market funds	$ 6,318	$ —	$ —	$ 6,318
Commercial paper	—	1,000	—	1,000
Cash equivalents	6,318	1,000	—	7,318
Corporate bonds	—	7,105	—	7,105
Commercial paper	—	6,475	—	6,475
Short-term marketable securities	—	13,580	—	13,580
Total financial assets	$ 6,318	$ 14,580	$ —	$ 20,898
Liabilities:				
Preferred stock warrant liability	$ —	$ —	$ —	$ —
Success fee derivative liability	—	—	1,165	1,165
Total financial liabilities	$ —	$ —	$ 1,165	$ 1,165

	June 30, 2020			
	Level 1	Level 2	Level 3	Total
Assets:				
Money market funds	$ 9,733	$ —	$ —	$ 9,733
Cash equivalents	9,733	—	—	9,733
Total financial assets	$ 9,733	$ —	$ —	$ 9,733
Liabilities:				
Success fee derivative liability	—	—	1,055	1,055
2020 Notes derivative liability	—	—	3,300	3,300
Total financial liabilities	$ —	$ —	$ 4,355	$ 4,355

The Company has no marketable securities as of June 30, 2020.

The Company values the convertible preferred stock warrant liability (Note 10) using the Black-Scholes Merton option-pricing model. The expected term for these warrants is based on the remaining contractual life of these warrants. The expected volatility assumption was determined by examining the historical volatility for industry peers, as the Company does not have a trading history for its common stock. The risk-free interest rate assumption is based on U.S. Treasury investments whose term is consistent with the expected term of the warrants. The expected dividend assumption is based on the Company's history and expectation of dividend payouts.

The fair value of the Series C-1 convertible preferred stock warrants was determined using the following assumptions:

	December 31, 2019
Risk-free interest rate	1.6 %
Remaining contractual life (in years)	0.1
Dividend yield	0 %
Volatility	57.5 %

Derivative liabilities include derivatives associated with the Company's Success Fee Agreement with Oxford Finance LLC (Note 6) and the 2020 Conversion Put (Note 6).

The Company valued the Success Fee derivative liability based on the Success Fee amount of $1.9 million and the probability and estimated timing of a liquidity event. The probability of occurrence of a Liquidity Event was estimated to be up to 65% and 60% before the expiration of the agreement as of December 31, 2019 and June 30, 2020, respectively. Changes in the estimated probability may result in an increase or decrease in the fair value of the derivative liability.

The Company valued the 2020 Notes derivative liability using the a "with and without" methodology. The "with and without" methodology involves valuing the convertible note on an as is basis and then valuing the 2020 Notes without each individual embedded derivative. The difference between the value of the 2020 Notes with the embedded derivatives and the value without each individual embedded derivative equals the fair value of that embedded derivative. The Company used a Monte Carlo Simulation ("MCS") to value the embedded derivatives. The first step of each simulation was to forecast the Company's Series G-1 convertible preferred stock price through the expiration of the 2020 Notes. In order to estimate the future share price of the Series G-1 convertible preferred stock, The Company applied a "random walk" model based upon a Geometric Brownian Motion process with a constant drift.

The fair value of the 2020 Notes derivative liability was determined using the following assumptions:

	April 17 2020	June 30 2020
Risk-free interest rate	0.2 %	0.2 %
Current Series G-1 convertible preferred stock value per share	$ 0.84	$ 0.85
Series G-1 convertible preferred stock volatility	34.4 %	32.5 %

The change in fair value of the convertible preferred stock warrant liability and derivative liabilities is summarized below (in thousands):

	Convertible Preferred Stock Warrant Liability	Success Fee Derivative Liability	2020 Notes Derivative Liability
Beginning fair value, January 1, 2019	12	642	—
Change in fair value	(12)	523	—
Ending fair value, December 31, 2019	$ —	$ 1,165	$ —
Beginning fair value, January 1, 2020	$ —	$ 1,165	$ —
Fair value at inception	—	—	$ 3,900
Change in fair value	—	$ (110)	$ (600)
Ending fair value, June 30, 2020	$ —	$ 1,055	$ 3,300

5. Balance Sheet Components

Cash and Cash Equivalents

The Company’s cash and cash equivalents consist of the following (in thousands):

	December 31, 2019	June 30, 2020
Cash	$ 7,449	$ 33,614
Cash equivalents:		
Money market funds	6,318	9,733
Commercial paper	1,000	—
Total cash and cash equivalents	$ 14,767	$ 43,347

Inventory

Inventory consists of the following (in thousands):

	December 31, 2019	June 30, 2020
Raw materials	$ 1,950	$ 3,551
Work in process	180	230
Finished goods	3,482	4,659
Total inventory	$ 5,612	$ 8,440

Prepaid Expenses and Other Current Assets

Prepaid expenses and other current assets consist of the following (in thousands):

	December 31, 2019	June 30, 2020
Prepaid expenses	$ 436	$ 503
Prepaid insurance	12	—
VAT receivable	387	505
Other current assets	766	153
Total prepaid expenses and other current assets	$ 1,601	$ 1,161

Property and Equipment, Net

Property and equipment, net consist of the following (in thousands):

	December 31, 2019	June 30, 2020
Machinery and equipment	$ 1,269	$ 1,302
Computer equipment and software	848	910
Furniture and fixtures	168	178
Leasehold improvements	57	81
Total	2,342	2,471
Less: accumulated depreciation	(1,440)	(1,557)
Property and equipment, net	$ 902	$ 914

Depreciation expense for the six months ended June 30, 2019 and June 30, 2020 was $0.1 million and $0.2 million, respectively.

Goodwill

Goodwill was $2.3 million as of December 31, 2019 and June 30, 2020 arising from the Company's acquisition of Emphasys Medical, Inc, in March 2009. No goodwill impairment losses have been recognized since the acquisition. There were no acquisitions or dispositions of goodwill in 2018 and 2019. The Company performed an annual test for goodwill impairment in the fourth quarter of the fiscal year ended December 31, 2019 and in the six months ended June 30, 2020 and determined that goodwill was not impaired.

Intangible Assets

Intangible assets consist of the following (in thousands):

	December 31, 2019		
	Gross Carrying Value	Accumulated Amortization	Net Carrying Value
Developed technology	$ 1,658	$ (1,188)	$ 470
Trademarks	191	(137)	54
Total intangible assets	$ 1,849	$ (1,325)	$ 524

	June 30, 2020		
	Gross Carrying Value	Accumulated Amortization	Net Carrying Value
Developed technology	$ 1,658	$ (1,244)	$ 414
Trademarks	191	(143)	48
Total intangible assets	$ 1,849	$ (1,387)	$ 462

Amortization expense relating to the intangibles totaled $0.1 million during each six months ended June 30, 2019 and June 30, 2020, respectively.

Future amortization expense is as follows as of June 30, 2020 (in thousands):

2020 (remaining six months)	$ 62
2021	123
2022	123
2023	123
2024	31
Total amortization expense	$ 462

Accrued Liabilities

Accrued liabilities consist of the following (in thousands):

	December 31, 2019	June 30, 2020
Accrued employee bonuses	$ 3,064	$ 956
Accrued vacation	1,098	1,627
Other accrued personnel related expenses	705	383
Accrued professional fees	1,342	328
Accrued interest	1,708	356
Sales taxes, franchise tax and VAT	762	586
Other	784	1,115
Total accrued liabilities	$ 9,463	$ 5,351

6. Long Term Debt and Convertible Notes

Term Loan

Oxford Finance Loan

In August 2014, the Company entered into a Loan and Security Agreement with Oxford Finance LLC for up to $20.0 million in term loans (“Oxford Finance Loan”). In 2014, the Company borrowed $15.0 million and had the ability to draw an additional $5.0 million conditioned upon the achievement of a revenue milestone. The period during which the Company could draw an additional $5.0 million ended on November 30, 2015 without the Company borrowing the additional $5.0 million. The term loan bore interest at 8.96% and had a five-year term. The first 36 months were interest only payments followed by 24 months of equal payments of principal and interest. A final payment of 8.50% of the term loan amount was due at maturity and was being accreted using the effective interest rate method. The term loan was collateralized by assets, including cash and cash equivalents, accounts receivable and property and equipment.

In May 2017, the Company entered into a First Amendment to Loan and Security Agreement that extended the interest only period through June 2018 and included an additional fee of $0.1 million due upon maturity. The amendment was accounted for as a debt modification and no gain or loss was recognized in the Company’s financial statements.

In May 2018, the Company entered into Second and Third Amendments to Loan and Security Agreement that extended the interest only period through May 2019 and the maturity date to July 1, 2020. The amendment was accounted for as a debt modification and no gain or loss is recognized in the Company’s financial statements. The Company had the option to further extend the interest only period through March 2020 and the maturity date to

May 1, 2021, provided that no event of default had occurred. The loan bore interest at an annual rate equal to the greater of (i) 8.71% and (ii) the sum of (a) the greater of the one month U.S. LIBOR rate on the last business day of the month that immediately precedes the month in which the interest will accrued and 1.85% plus (b) 6.86%. In May 2019, the Company elected to extend the interest only period of the term loan through March 2020 and the maturity date to May 2021. The incremental amendment fee, due at maturity, increased to $0.8 million from $0.4 million when the Company extended the interest only period through March 2020. As of December 31, 2019, the Oxford Finance Loan had an annual effective interest rate of 11.11% per year.

In connection with the original agreement in August 2014, the Company also entered into the Success Fee Agreement. In the event of a sale or other disposition by the Company of all or substantially all of its assets, a merger or consolidation, or an initial public offering (a "Liquidity Event"), before the termination of the agreement on August 28, 2021, the Company is required to pay up to $2.5 million (the "Success Fee") to Oxford Finance LLC. The Success Fee is equal to 6.25% of the term loan if the Liquidity Event occurs within 18 months of August 28, 2014, 8.75% if the Liquidity Event occurs after 18 months and within 3 years of August 28, 2014, and 12.50% if the Liquidity Event occurs after the third anniversary of August 28, 2014. As of December 31, 2019 and June 30, 2020, the maximum amount of Success Fee subject to a potential payout is $1.9 million. This agreement has been identified as a freestanding derivative under ASC 815, *Derivatives* ("Success Fee") and is remeasured to its fair value at the end of each reporting period and any change in fair value is recognized as change in other income (expense), net in the statements of operations and comprehensive loss (Note 4). The fair value of the Success Fee derivative liability as of December 31, 2019 and June 30, 2020 was $1.2 million and $1.1 million, respectively.

The Loan and Security Agreement contained customary affirmative and negative covenants and events of default. As of December 31, 2019, the Company was in default with a covenant in the Loan and Security Agreement resulting from its failure to maintain cash balances outside the United States within the levels set forth in the Loan and Security Agreement. This event of default was waived by Oxford Finance LLC.

On February 20, 2020, the Company repaid its entire obligation under the term loan agreement with Oxford Finance LLC amounting to $17.3 million, including outstanding loan amount of $15.0 million, final payment of $1.3 million, amendment fees of $0.9 million and accrued interest of $0.1 million. The repayment of the obligation under the term loan agreement with Oxford Finance LLC was accounted as extinguishment and the Company recorded a loss on extinguishment of $0.4 million included in interest expense in the condensed consolidated statements of operations and comprehensive loss.

The Oxford Finance Loan as of December 31, 2019 and as of June 30, 2020, consists of the following (in thousands):

	December 31, 2019	June 30, 2020
Term loan	$ 15,000	$ —
Less: debt issuance costs	(27)	—
Less: deferred financing costs	(8)	—
Term loan	$ 14,965	$ —

During the six months ended June 30, 2019 and 2020, the Company recorded interest expense related to deferred financing and debt issuance costs of Oxford Finance Loan of less than $0.1 million.

Interest expense on the term loan amounted to $0.9 million and $0.4 million during the six months ended June 30, 2019 and June 30, 2020, respectively.

CIBC Loan

On February 20, 2020, the Company executed a Loan and Security Agreement (the "CIBC Agreement") with Canadian Imperial Bank of Commerce ("CIBC") to raise up to $32.0 million in debt financing ("CIBC Loan") consisting of $17.0 million advanced at the closing of the agreement (Tranche A), with the option to drawing up to an additional $8.0 million (Tranche B) on or before February 20, 2022. The term loan also provides for an additional financing tranche (Tranche C) of up to $7.0 million on or prior to February 20, 2022, which is conditioned upon achieving a trailing six-month revenue of at least $20.0 million as of the date of any Tranche C borrowing. The availability of Tranche B and Tranche C is further conditioned upon the joining of Pulmonx International Sàrl to the CIBC Agreement and the execution by Pulmonx International Sàrl of Swiss-law collateral documentation in favor of CIBC. The CIBC Loan originally had a five-year term maturing on February 20, 2025, which included 24 months of interest only payments followed by 36 months of equal payments of principal and interest. The interest only period can be extended to 36 months if the Company achieves three-month trailing revenue of at least $20.0 million as of February 20, 2022. The CIBC Loan bears interest at a floating rate equal to 1.0% above the Wall Street Journal Prime Rate at any time. The Tranche C loan will bear interest at a floating rate equal to 1.5% above the Wall Street Journal Prime Rate at any time. The CIBC Loan is collateralized by substantially all of the Company's assets, including cash and cash equivalents, accounts receivable, intellectual property and equipment. The Company may prepay the loan, subject to certain requirements. The CIBC Agreement includes customary restrictive covenants, financial covenants, events of default and other customary terms and conditions.

In April 2020, the Company entered into a First Amendment to CIBC Agreement that changed the maturity date to March 15, 2022, which shall be automatically extended to February 20, 2025 if the maturity of all outstanding convertible notes (see below) is extended to a date no earlier than May 21, 2025 or all convertible notes have been converted into convertible preferred stock of the Company. An amendment fee of $0.2 million was paid. The Tranche B drawing is conditioned to achieving a trailing six-month revenue of at least $15.0 million as of the date of any Tranche B borrowing. On the date of drawing Tranche B Loan or Tranche C Loan, the Company will pay a structuring fee in an amount equal to 1.0% of the amount of Tranche B Loan or Tranche C Loan. The amendment was accounted for as a debt modification and no gain or loss was recognized. As of June 30, 2020, the CIBC Loan had an annual effective interest rate of 5.16% per year.

The financial covenants in the CIBC Agreement require the Company to have revenue for the trailing three-month period ending on March 31, 2021, and the last day of each June, September, December and March thereafter of not less than the greater of (i) the amount equal to 80% of the revenue for the trailing three-month period ending on such day, as set forth in the annual projections delivered to the CIBC, and approved by CIBC, and (ii) the revenue for the trailing three-month period ending on the last day of the month for which this covenant had most recently been tested prior to such day. Further, the Company on and at all times after April 17, 2020, maintain unrestricted cash in an aggregate amount equal to or greater than the Adjusted EBITDA loss as defined in the CIBC Agreement for the four-month period ending on any date of determination. As of June 30, 2020, the Company was in compliance with all the covenants contained in CIBC Agreement.

The CIBC Loan as of June 30, 2020, consists of the following (in thousands):

	June 30, 2020
Term loan	$ 17,000
Less: debt issuance costs	(277)
Term loan	$ 16,723

The Company paid $0.3 million fees to the lender and third parties which is reflected as a discount on the CIBC Loan and is being accreted over the life of the term loan using the effective interest method.

During the six months ended June 30, 2020, the Company recorded interest expense related to deferred financing and debt issuance costs of CIBC Loan of less than $0.1 million.

Interest expense on the CIBC Loan amounted $0.3 million during the six months ended June 30, 2020.

Credit Agreement

In April 2020, Pulmonx International Sàrl, the wholly-owned subsidiary of the Company, entered into a COVID-19 Credit Agreement with UBS Switzerland AG to receive up to 0.5 million Swiss Francs ($0.5 million U.S. dollar equivalent) under Swiss Federal Government program to mitigate the economic impact of the spread of the coronavirus. In May 2020, Pulmonx International Sàrl received 0.5 million Swiss Francs ($0.5 million U.S. dollar equivalent) under the COVID-19 Credit Agreement. The COVID-19 Credit Agreement will bear no interest and is payable within 60 months after receipt of funds. As of June 30, 2020, Pulmonx International Sàrl did not make any repayment of credit agreement.

Paycheck Protection Program

The Company determined that the original eligibility requirements per the guidelines originally established by the U.S. federal government as part of the CARES Act for the Paycheck Protection Program (the “PPP”) were met. As such, on April 16, 2020, the Company received $2.7 million in support from the PPP. Because the U.S. government subsequently changed its position and guidelines related to the PPP and publicly traded companies, the Company repaid the loan on May 1, 2020.

Convertible Notes

In April 2020, the Company entered into a Note Purchase Agreement and Convertible Promissory Notes (collectively the “2020 Notes Agreement”) with certain investors (the “Lenders”) to issue convertible promissory notes (the “2020 Notes”) for a maximum aggregate amount of $66.0 million. In April 2020, the Company received $33.0 million in gross proceeds from issuance of the 2020 Notes. Upon meeting customary closing conditions, the Company can draw up to an additional $33.0 million, provided that any such draw be for no less than $5.0 million on or prior to April 17, 2022. All unpaid interest and principal will be due and payable upon request of the majority of Lenders (“Majority Holders”) on or after the earlier of April 17, 2022 or an event of default. The 2020 Notes accrue interest at a rate equal to 2.0% above the Wall Street Journal Prime Rate. The Company may prepay the 2020 Notes prior to April 17, 2022 only with the consent of the Majority Holders.

In the event that the Company issues and sells shares of its convertible preferred stock to investors with total proceeds of not less than $30.0 million (excluding the conversion of the 2020 Notes or other convertible securities issued for capital raising purposes) (a “Qualified Financing”), then the outstanding principal amount of the 2020 Notes and any unpaid accrued interest shall automatically convert into the same class and series of convertible preferred stock sold in the Qualified Financing at a conversion price equal to the lesser of (i) the price per share paid for preferred stock in the Qualified Financing multiplied by either 85% if the conversion takes place within 18 months of the Initial Closing, or 80% otherwise, and (ii) $13.20 per share.

In the event the Company sells shares of convertible preferred stock in a transaction that does not constitute a Qualified Financing (a “Non-Qualified Financing”), then the Majority Holders will have the option to treat such Non-Qualified Financing as a Qualified Financing; provided, that, the Majority Holders may not elect to convert the 2020 Notes held by any Significant Holder in the Non-Qualified Financing without such Significant Holder’s consent unless such Non-Qualified Financing (a) is led by an investor who is not currently a stockholder of the Company and (ii) raises at least $10.0 million in total proceeds from investors who are not currently stockholders of the Company. A Significant Holder is a holder of the 2020 Notes equal to or greater than $20 million. If there is an event of default, then the conversion of the 2020 Notes will be at a conversion price equal to the lesser of:

a. the price per share paid for convertible preferred stock by the Investors in the Non-Qualified Financing multiplied by 75% , and

b. the Series G-1 convertible preferred stock conversion price of $13.20 per share multiplied by 75%.

Upon an initial public offering which results in net proceeds of not less than $30.0 million (a “Qualified IPO”), the outstanding 2020 Notes and any unpaid accrued interest shall automatically convert in whole into shares of the

Company's common stock at a conversion price equal to the lesser of (i) price per share paid for common stock in the Qualified IPO multiplied by either 85% if the conversion takes place within 18 months of the Initial Closing, or 80% otherwise, and (ii) $13.20 per share.

Upon an initial public offering that does not constitute a Qualified IPO (a "Non-Qualified IPO"), the Majority Holders shall have the option to treat such Non-Qualified IPO as a Qualified IPO; provided that if there is an event of default, conversion of the 2020 Notes will be at a conversion price equal to the lesser of:

a. the price per share paid for common stock in the Non-Qualified IPO multiplied by 75%, and

b. the Series G- 1 convertible preferred stock conversion price of $13.20 per share multiplied by 75%.

At any other time upon the election of the Majority Holders or a Significant Holder, the outstanding principal amount of the 2020 Notes and any unpaid accrued interest will convert in whole into the Company's Series G-1 convertible preferred stock at the Series G-1 convertible preferred stock conversion price of $13.20 per share. If there is an event of default prior to selection of such option, the 2020 Notes will be converted at a conversion price equal to the Series G-1 convertible preferred stock conversion price of $13.20 per share multiplied by 75%.

Upon any event of default, the Majority Holders can, at written notice to the Company, declare the principal and unpaid accrued interest under the 2020 Notes immediately due and payable.

The 2020 Notes include embedded derivatives that are required to be bifurcated from the 2020 Notes and accounted for separately as a single, compound embedded derivative instrument under ASC 815, *Derivatives* ("2020 Notes derivative liability"). The Company determined that the share settled redemption in the case of a financing or an IPO discussed above represents an embedded derivative that is not clearly and closely related to the debt host and have accounted for these settlement alternatives as separate embedded derivative liability. The fair value of the 2020 derivative liability of $3.9 million was recorded on the issuance date of the 2020 Notes resulting in a debt discount, which is reported as a direct deduction from the face amount of the 2020 Notes. The 2020 derivative liability is remeasured to its fair value at the end of each reporting period and any change in fair value is recognized in other income (expense), net in the statements of operations and comprehensive loss (Note 4). The fair value of the 2020 derivative liability as of June 30, 2020 was $3.3 million.

At June 30, 2020, the Company retained the ability to draw up to an additional $33.0 million under the 2020 Notes Agreement until the maturity date in April 2022.

The 2020 Notes consist of the following (in thousands):

	June 30, 2020
Convertible notes	$ 33,000
Less: debt discount	(3,690)
Convertible notes	$ 29,310

The Company incurred debt issuance costs of $0.1 million in connection with the 2020 Notes Agreement, which are reported on the balance sheet as a direct deduction from the face amount of the 2020 Notes.

Debt discount of $0.1 is amortized using the effective interest rate method over the term of the note and recorded as a non-cash interest expense.

During the six months ended June 30, 2020, the Company recorded interest expense of $0.7 million on the 2020 Notes. As of June 30, 2020, the 2020 Notes had an annual effective interest rate of 12.33% per year. As of June 30, 2020, the accrued interest on the 2020 Notes of $0.4 million is included in accrued liabilities on the condensed consolidated balance sheet.

The Company's obligations with respect to the 2020 Notes are unsecured and subordinated to its obligations with respect to the CIBC Loan. The 2020 Notes have customary events of default.

Contractual Maturities of Financing Obligations

As of June 30, 2020, the aggregate future payments under the CIBC Loan, Credit Agreement, and 2020 Notes (including interest payments) are as follows (in thousands):

2020 (remaining six months)	$	363
2021		723
2022		53,702
2023		—
2024		—
2025		527
Total		55,315
Less: unamortized debt discount		(3,967)
Less: interest		(4,788)
Term loan, convertible notes, and credit agreement	$	46,560

7. Revenue Recognition

The Company's contract liabilities consist of deferred revenue for remaining performance obligations by the Company to the customer after delivery, which was $0.2 million and less than $0.1 million as of December 31, 2019 and June 30, 2020. The deferred revenue as of December 31, 2018 was $0.1 million, which was recognized as revenue during the year ended December 31, 2019. The deferred revenue as of December 31, 2019 was $0.2 million, which was recognized as revenue during the six months ended June 30, 2020.

The Company disaggregates its revenue by major geographic region, which has been disclosed in Note 14, "Segment Information".

8. Leases, Lease Commitments and Contingencies

The Company has a lease for its headquarters location in Redwood City, California through July 2020. In October 2019, the Company renewed its lease for the headquarters location in Redwood City, California for an additional five years commencing in August 2020 and expiring in July 2025. The monthly base rent during the renewed term will be $0.1 million and is subject to an annual increase of 3.5%. The Company is responsible for its share of real estate taxes, common area maintenance and management fees. The Company will receive a tenant improvement allowance of $0.2 million on commencement of the renewal term in August 2020.

During 2013, the Company entered into a five-year lease for office facilities in Switzerland which expired in January 2018. In 2017, the Company amended the lease and extended the term through January 2020. The Company had an option to extend the lease through January 2022 by providing notice to the landlord by the end of January 2019, which was not exercised by the Company. Per lease terms, in the event the option to extend is not exercised, the lease remains in force and can be terminated with a 12-month's notice.

In April 2020, the Company executed a sublease for another office facility in Redwood City, California for a three-year term commencing on June 1, 2020. The lease agreement provides for early termination if the Company or Sublandlord elects to terminate the lease. The early termination may only occur on or after the expiration of the 18th full calendar month of the sublease term.

The Company has leases on two vehicle leases with lease terms ranging from 2 to 4 years.

Operating lease cost consists of the following (in thousands):

	Six Months Ended June 30, 2020	
Operating lease cost		802
Short-term lease cost		6
Variable lease cost		120
Total lease cost	$	928

The following table summarizes a maturity analysis of the Company's lease liabilities showing the aggregate lease payments as of June 30, 2020 (in thousands):

2020 (remaining 6 months)	$	987
2021		2,008
2022		1,580
2023		1,636
2024		1,693
2025 and beyond		1,007
Total minimum lease payments		8,911
Less: Amount of lease payments representing interest		1,543
Present value of future minimum lease payments	$	7,368
Less: Current lease liabilities	$	1,311
Long-term lease liabilities	$	6,057

The following table summarizes additional information related to the Company's operating leases as of June 30, 2020 (in thousands, except weighted average data):

Right of use asset	$	6,777
Weighted average remaining lease term (years)		4.77
Weighted average discount rate (percent)		6.8

The following table summarizes other supplemental information related to the Company's operating leases (in thousands):

Cash paid for amounts included in the measurement of lease liabilities included in cash flows used in operating activities		498
Right-of-use assets obtained in exchange for lease liabilities	$	735

Contingencies

From time to time, the Company may be a party to various litigation claims in the normal course of business. Legal fees and other costs associated with such actions are expensed as incurred. The Company assesses, in conjunction with legal counsel, the need to record a liability for litigation and contingencies. Accrual estimates are recorded when and if it is determinable that such a liability for litigation and contingencies are both probable and reasonably estimable.

In December 2018, a former distributor outside the United States filed suit alleging the Company's subsidiary, PulmonX International Sàrl, conducted unfair competitive practices and violated the exclusive distribution rights as a result of the subsidiary's termination of its distribution agreement. The complaint seeks pecuniary and non-pecuniary damages. The Company is in the initial stages of evaluating this matter and does not believe the impact of any such matter will be material to the Company's results of operation or financial position.

9. Income Taxes

The income tax expense for the six months ended June 30, 2020 and 2019 was determined based upon estimates of the Company's effective income tax rates in various jurisdictions. The difference between the Company's effective income tax rate and the U.S. federal statutory rate is primarily attributable to state income taxes, foreign income taxes, the effect of certain permanent differences, and full valuation allowance against net deferred tax assets.

The income tax expense for the six months ended June 30, 2020 and 2019 relates primarily to state minimum income tax and income tax on the Company's earnings in foreign jurisdictions.

The Coronavirus Aid, Relief, and Economic Security ("CARES") Act enacted in March 2020 did not provide an income tax benefit for the Company given its historical U.S. losses and a full valuation allowance against its net U.S. deferred tax assets.

10. Warrants for Convertible Preferred Stock

A summary of the outstanding convertible preferred stock warrants is as follows (in thousands, except per share and share amounts):

		December 31, 2019		
	Exercise Price Per share	Shares	Fair Value of Liability	Expiration Date
Series C-1 convertible preferred stock warrants	$ 10.57	215,291	$ —	February 9, 2020

Series C-1 Convertible Preferred Stock Warrants

In January and February 2020, warrants to purchase 213,876 shares of Series C-1 convertible preferred stock were exercised at an exercise price of $10.57 per share, yielding $2.3 million cash proceeds. Warrants to purchase 1,415 shares of Series C-1 convertible preferred stock warrants expired unexercised.

11. Convertible Preferred Stock

Under the Company's Amended and Restated Certificate of Incorporation, the Company is authorized to issue up to 228,743,387 shares of convertible preferred stock.

In April 2019, the Company issued 3,030,296 shares of Series G-1 convertible preferred stock at a price of $13.20 per share for cash proceeds of approximately $40.0 million. Additionally, the Company issued 1,903,935 shares of Series G-1 convertible preferred stock at a price of $13.20 per share upon the conversion of $25.1 million of convertible promissory notes and accrued interest with Boston Scientific Corporation.

As of December 31, 2019, convertible preferred stock consists of the following (in thousands, except per share and share amounts):

Series	Number of Shares Authorized	Number of Shares Issued and Outstanding	Carrying Value(1)	Liquidation Preference per Share	Liquidation Value
Series A-1	8,486,224	848,595	$ 8,135	$ 9.59	$ 8,138
Series B-1	24,224,676	2,422,444	23,130	10.57	25,605
Series C-1	39,422,980	3,726,974	37,306	10.57	39,395
Series D-1	9,400,000	939,979	10,268	11.00	10,340
Series E-1	9,230,768	923,049	11,896	13.00	12,000
Series F-1	37,878,787	3,787,878	49,800	13.20	50,000
Series G-1	49,342,376	4,934,231	$ 64,804	13.20	$ 65,132
Total	177,985,811	17,583,150	$ 205,339		$ 210,610

(1) Carrying values above are net of issuance costs.

As of June 30, 2020, convertible preferred stock consists of the following (in thousands, except per share and share amounts):

Series	Number of Shares Authorized	Number of Shares Issued and Outstanding	Carrying Value(1)	Liquidation Preference per Share	Liquidation Value
Series A-1	8,486,224	848,595	$ 8,135	$ 9.59	$ 8,138
Series B-1	24,224,676	2,422,444	23,130	10.57	25,605
Series C-1	39,422,980	3,940,850	39,566	10.57	41,655
Series D-1	9,400,000	939,979	10,268	11.00	10,340
Series E-1	9,230,768	923,049	11,896	13.00	12,000
Series F-1	37,878,787	3,787,878	49,800	13.20	50,000
Series G-1	100,099,952	4,934,231	64,804	13.20	65,132
Total	228,743,387	17,797,026	$ 207,599		$ 212,870

(1) Carrying values above are net of issuance costs.

Dividends

The holders of Series A-1, Series B-1, Series C-1, Series D-1, Series E-1, Series F-1 and Series G-1 convertible preferred stock are entitled to receive dividends, out of any assets legally available, prior and in preference to any declaration or payment of any dividend on the common stock of the Company, at a rate of $0.7672, $0.8456, $0.8456, $0.88, $1.04, $1.056 and $1.056 respectively, per share per year (as adjusted for stock splits, stock dividends, reclassifications and similar events) payable quarterly when, and as declared by the Board of Directors and are not cumulative. After payment of such dividends, any additional dividends shall be distributed the holders of Series A-1, Series B-1, Series C-1, Series D-1, Series E-1, Series F-1 and Series G-1 convertible preferred stock and common stock on a pro rata basis. No dividends have been declared to date.

Liquidation

In the event of any liquidation, dissolution or winding up of the Company, either voluntary or involuntary, the holders of Series G-1 convertible preferred stock shall be entitled to receive, prior and in preference to any distribution of the assets of the Corporation or any such consideration to the holders of Series A-1, Series B-1, Series C-1, Series D-1, Series E-1 and Series F-1 convertible preferred stock or the holders of common stock, an amount equal to $13.20 per share (as adjusted for stock splits, stock dividends, reclassification and similar events) plus any declared but unpaid dividends. If upon the occurrence of such event, the assets and funds available are insufficient to permit the payment to the Series G-1 convertible preferred stockholders of the full preferential amounts, then the entire assets and funds of the Company legally available for distribution shall be distributed ratably among the holders of Series G-1 convertible preferred stock in proportion to the preferential amount each such holder is otherwise entitled to receive. After the payment in full of the Series G-1 liquidation preference, the holders of Series F-1 convertible preferred stock shall be entitled to receive, prior and in preference to any distribution of the assets of the Corporation or any such consideration to the holders of Series A-1, Series B-1, Series C-1, Series D-1 and Series E-1 convertible preferred stock or the holders of common stock, an amount equal to $13.20 per share (as adjusted for stock splits, stock dividends, reclassification and similar events) plus any declared but unpaid dividends. If upon the occurrence of such event, the assets and funds available are insufficient to permit the payment to the Series F-1 convertible preferred stockholders of the full preferential amounts, then the entire assets and funds of the Company legally available for distribution shall be distributed ratably among the holders of Series F-1 convertible preferred stock in proportion to the preferential amount each such holder is otherwise entitled to receive. After the payment in full of the Series F-1 liquidation preference, the holders of the Series E-1 convertible preferred stock shall be entitled to receive, prior and in preference to any distribution of the assets of the Corporation or any such consideration to the holders of Series A-1, Series B-1, Series C-1, and Series D-1 convertible preferred stock or the holders of common stock, an amount equal to $13.00 per share (as adjusted for stock splits, stock dividends, reclassification and similar events) plus any declared but unpaid dividends. If upon the occurrence of such event, after payment in full of the Series F-1 liquidation preference, the assets and funds available are insufficient to permit the payment to the Series E-1 convertible preferred stockholders of the full preferential amounts, then the entire assets and funds of the Company legally available for distribution shall be distributed ratably among the holders of Series E-1 convertible preferred stock in proportion to the preferential amount each such holder is otherwise entitled to receive. After the payment in full of the Series F-1 liquidation preference and the Series E-1 liquidation preference, the holders of Series A-1, Series B-1, Series C-1 and Series D-1 convertible preferred stock are entitled to receive, prior and in preference to any distribution of the assets of the Corporation or any such consideration to the holders of common stock, an amount equal to $9.59, $10.57, $10.57 and $11.00 per share (as adjusted for stock splits, stock dividends, reclassification and similar events) plus any declared but unpaid dividends. If upon the occurrence of such liquidation, the assets and funds of the Company legally available for distribution are insufficient to permit payment to such holders, then the entire remaining assets and funds shall be distributed ratably among such holders in proportion to the preferential amounts each such holder is otherwise entitled to receive.

In the event of a Liquidation Transaction involving one or more third parties other than the purchaser of Series F-1 convertible preferred stock and after the payment in full of the liquidation preference required to be paid, the holders of the Series F-1 convertible preferred stock shall be entitled to receive, prior and in preference to any distribution of any of the assets of the Company or any such consideration to the holders of common stock an amount equal to the Additional Preference (as defined below) for each share of Series F-1 preferred stock then held by them. Upon the closing of a Liquidation Transaction, if the amounts earned or payable to the stockholders of the Corporation on or before the one (1) year anniversary of the closing of such Liquidation Transaction is (i) equal to or greater than $250.0 million but less than $300.0 million, the Additional Preference is equal to $3.30 per share (as adjusted for stock splits, stock dividends, reclassifications and the like) for each share of Series F-1 convertible preferred stock then held by them, (ii) equal to or greater than $300.0 million but less than $350.0 million, the Additional Preference is equal to $5.00 per share (as adjusted for stock splits, stock dividends, reclassifications and the like) for each share of Series F-1 preferred stock then held by them, and (iii) equal to or greater than $350.0 million, the Additional Preference is equal to $6.60 per share (as adjusted for stock splits, stock dividends, reclassifications and the like) for each share of Series F-1 convertible preferred stock then held by them.

After liquidation preferences to the convertible preferred stockholders have been paid, and after the Additional Preference has been paid, if any, the remaining assets of the Company shall be distributed to the holders of common stock, Series A-1, Series B-1, Series C-1, Series D-1, Series E-1, Series F-1 and Series G-1 convertible preferred stock as if the convertible preferred shares were converted into common stock at then-applicable conversion price until the Series A-1, Series B-1, Series C-1, Series D-1, Series E-1, Series F-1 and Series G-1 convertible preferred stock have received an aggregate amount (including the initial preference amount) equal to $28.77, $31.71, $31.71, $33.00, $39.00, $39.60 and $39.60 per share (as adjusted for stock splits, stock dividends, reclassifications and similar events) plus any declared and unpaid dividends. The holders of common stock are entitled to receive ratably on a per-share basis all remaining assets.

A liquidation, dissolution or winding up of the Company shall be deemed to be occasioned by, or include, (A) the sale, lease, license on an exclusive basis, conveyance or disposition (whether by merger or otherwise) by the Company of all or substantially all of the assets of the Company, or the sale or disposition of one or more subsidiaries of the Company if substantially all of the assets of the Company and its subsidiaries taken as a whole are held by such subsidiary or subsidiaries, or (B) the merger of the Company with or into any other corporation, limited liability company or other entity (other than a wholly-owned subsidiary of the Company); provided that none of the following shall be considered a Liquidation Transaction: (i) a merger effected exclusively for the purpose of changing the domicile of the Company, (ii) an equity financing effected for bona fide capital raising purposes in which the Company is the surviving entity or (iii) any transaction in which the stockholders of the Company immediately prior to the transaction own greater than 50% of the voting power of the Company or such other surviving or resulting entity (or if the Company or such other surviving or resulting entity is a wholly-owned subsidiary immediately following such acquisition, its parent).

Voting

The holders of convertible preferred stock shall have the same voting rights as the holders of common stock. The holders of common stock and the convertible preferred stock shall vote together as a single class on all matters. Each holder of common stock shall be entitled to one vote for each share of common stock held, and each holder of convertible preferred stock shall be entitled to the number of votes equal to the number of shares of common stock into which such shares of convertible preferred stock could be converted.

As of June 30, 2020, the Board of Directors was comprised of ten members. For so long as there are outstanding at least 50,000 shares of Series A-1 convertible preferred stock (as adjusted for stock splits, reclassifications or similar events), the holders of Series A-1 convertible preferred stock, voting as a separate class, shall be entitled to elect one member of the Company’s Board of Directors. For so long as there are outstanding at least 50,000 shares of Series B-1 convertible preferred stock (as adjusted for stock splits, reclassifications or similar events), the holders of Series B-1 convertible preferred stock, voting as a separate class, shall also be entitled to elect two members of the Company’s Board of Directors. For so long as there are outstanding at least 50,000 shares of Series C-1 convertible preferred stock (as adjusted for stock splits, reclassifications or other similar transactions), the holders of Series C-1 convertible preferred stock, voting as a separate class, shall be entitled to elect two members of the Company’s Board of Directors. For so long as there are outstanding at least 50,000 shares of Series G-1 convertible preferred stock (as adjusted for stock splits, reclassifications or other similar transactions), the holders of Series G-1 convertible preferred stock, voting as a separate class, shall be entitled to elect one member of the Company’s Board of Directors. The holders of common stock and convertible preferred stock, voting together as a single class on an as-if-converted basis, shall be entitled to elect all remaining members of the Board of Directors.

Conversion

Each share of convertible preferred stock shall be convertible, at the option of the holder at any time after the date of issuance into the number of fully paid and non-assessable shares of common stock as determined by dividing the original issue price per share of each series of convertible preferred stock by the conversion price per share in effect for the shares of each series of convertible preferred stock at the time of conversion. The original conversion price per share of Series A-1, Series B-1, Series C-1, Series D-1, Series E-1, Series F-1 and Series G-1 convertible preferred stock shall be the original issue price, subject to adjustment, as described in the Company’s Amended and Restated Certificate of Incorporation.

Each share of convertible preferred stock shall automatically be converted into shares of common stock at the conversion rate at the time in effect for such share immediately upon the earlier of (i) the Company’s sale of its common stock in a firm commitment underwritten public offering pursuant to a registration statement under the Securities Act of 1933 (“IPO”) which results in aggregate cash proceeds to the Company of not less than $30.0 million (net of underwriting discounts and commissions) (“Qualified IPO”) or (ii) the date specified by the vote or written consent of the holders of at least a majority of the then outstanding shares of convertible preferred stock, voting together as a single class. However, if the offering price to the public in a Qualified IPO ("Public Offering Price") is less than 1.15 times of the conversion price of the Series G-1 convertible preferred stock in effect immediately prior to the Qualified IPO, then the conversion price for the Series G-1 convertible preferred stock shall be adjusted such that, upon the closing of the Qualified IPO, each share of Series G-1 convertible preferred stock will convert into that number of shares of common stock equal to the sum of (a) the number of shares of common stock issuable upon conversion of such share of Series G-1 convertible preferred stock immediately prior to the Qualified IPO (the "Pre-IPO Shares") and (b) an additional number of shares of common stock determined by multiplying the Pre-IPO Shares by the quotient of (x) the difference between 1.15 times the conversion price of the Series G-1 convertible preferred stock immediately prior to the Qualified IPO and the Public Offering Price, divided by (y) the Public Offering Price.

12. Stockholders' Deficit

Common Stock

As of December 31, 2019 and June 30, 2020, the Company's certificate of incorporation authorized the Company to issue up to 240,000,000 and 300,000,000 shares of common stock, respectively. Common stockholders are entitled to dividends as and when declared by the Board of Directors, subject to the rights of holders of all classes of stock outstanding having priority rights as to dividends. There have been no dividends declared to date. The holder of each share of common stock is entitled to one vote. During 2019 the Company constructively retired 414 shares of common stock during the year that were abandoned.

Shares Reserved for Future Issuance

The Company has reserved shares of common stock for future issuances as follows:

	December 31, 2019	June 30, 2020
Series A-1 convertible preferred stock outstanding	848,595	848,595
Series B-1 convertible preferred stock outstanding	2,422,444	2,422,444
Series C-1 convertible preferred stock outstanding	3,726,974	3,940,850
Series D-1 convertible preferred stock outstanding	939,979	939,979
Series E-1 convertible preferred stock outstanding	923,049	923,049
Series F-1 convertible preferred stock outstanding	3,787,878	3,787,878
Series G-1 convertible preferred stock outstanding	4,934,231	4,934,231
Warrants to purchase Series C-1 convertible preferred stock	215,291	—
Convertible notes*	—	—
Common stock options issued and outstanding	3,279,324	3,490,688
Common stock available for future grants	77,603	10,725

* At June 30, 2020, the conversion of the 2020 Notes into convertible preferred stock was dependent on the outstanding loan balance including accrued interest and the per share conversion price (see Note 6). Due to these factors the number of convertible preferred stock issuable upon conversion of convertible note is not determinable.

Stock Option Plan

A summary of stock option activity for the six months ended June 30, 2020 is set forth below:

		Outstanding Options	
	Shares Available for Grant	Number of Shares	Weighted Average Exercise Price
Balance, January 1, 2020	77,603	3,279,324	$ 1.66
Additional shares reserved	156,825		
Options granted	(227,900)	227,900	$ 2.00
Options exercised		(8,090)	1.50
Options canceled[(1)]	4,197	(8,446)	1.71
Balance, June 30, 2020	10,725	3,490,688	$ 1.69

(1) Canceled stock options issued under the Company's 2000 Stock Plan were canceled after the 2010 Stock Plan was approved and are not included in the shares available for grant as they were not returned to the stock option pool.

The weighted average exercise price and aggregate intrinsic value of options outstanding and exercisable at June 30, 2020 was $1.69 per share and less than $0.1 million, respectively.

	June 30, 2020		
	Number of Shares	Weighted Average Exercise Price	Weighted Average Contractual Life (in Years)
Options vested	2,439,842	$ 1.57	5.43
Options vested and expected to vest	3,490,688	$ 1.69	6.57

Total intrinsic value of options vested and expected to vest as of June 30, 2020 was less than $0.1 million.

Early Exercise of Stock Options

Under the terms of the individual option grants, all options are fully exercisable on the grant date, subject to the Company's repurchase right at the original exercise price. Accordingly, options may be exercised prior to vesting. The shares are subject to the Company's lapsing repurchase right upon termination of employment or over the options' vesting period of generally four years at the original purchase price. The proceeds initially are recorded in other liabilities from the early exercise of stock options and are reclassified to additional paid-in capital as the Company's repurchase right lapses. During the six months ended June 30, 2019, the Company repurchased 812 shares of common stock for less than $0.1 million. During the six months ended June 30, 2020, the Company did not repurchase shares of common stock. As of December 31, 2019 and June 30, 2020, 199,810 and 153,839 shares were subject to repurchase, with an aggregate exercise price of less than $0.3 million and $0.2 million, respectively, and were recorded in other current liabilities.

Total Stock-Based Compensation

Stock-based compensation expense is reflected in the statements of operations and comprehensive loss as follows (in thousands):

	Six Months Ended June 30,	
	2019	2020
Cost of goods sold	$ 9	$ 30
Research and development	31	33
Selling, general and administrative	85	305
Total	$ 125	$ 368

As of June 30, 2020, there was $1.7 million of unrecognized compensation costs related to non-vested common stock options, expected to be recognized over a weighted-average period of 2.1 years.

13. Net Loss per Share Attributable to Common Stockholders

The following table sets forth the computation of basic and diluted net loss per share attributable to common stockholders which excludes shares which are legally outstanding, but subject to repurchase by the Company (in thousands, except share and per share amounts):

	Six Months Ended June 30,	
	2019	2020
Numerator		
Net loss attributable to common stockholders	$ (11,699)	$ (19,074)
Denominator		
Weighted-average common stock outstanding	1,732,466	2,105,481
Less: weighted-average common shares subject to repurchase	(23,369)	(184,408)
Weighted-average common shares used to compute basic and diluted net loss per share	1,709,097	1,921,073
Net loss per share attributable to common stockholders, basic and diluted	$ (6.85)	$ (9.93)

The following potentially dilutive securities outstanding have been excluded from the computation of diluted weighted average shares outstanding because such securities have an antidilutive impact due to the Company's net loss, in common stock equivalent shares:

	Six Months Ended June 30,	
	2019	2020
Convertible preferred stock	17,583,150	17,797,026
Convertible preferred stock warrants	215,291	—
Options to purchase common stock	2,922,604	3,490,688
Unvested early exercised common stock options	27,741	153,839
Convertible notes*	—	—

* At June 30, 2020, the conversion of the 2020 Notes into convertible preferred stock was dependent on the outstanding loan balance including accrued interest and the per share conversion price (see Note 6). Due to these factors the number of convertible preferred stock issuable upon conversion of convertible note is not determinable.

Unaudited Pro Forma Net Loss per Share Attributable to Common Stockholders

Unaudited pro forma basic and diluted net loss per share attributable to common stockholders are computed as follows (in thousands, except share and per share data):

	Six Months Ended June 30, 2020
	(unaudited)
Numerator	
Net loss attributable to common stockholders, basic and diluted	$ (19,074)
Adjust: Interest expense of 2020 Notes	691
Adjust: Change in fair value of 2020 Notes derivative liability	$ (600)
Pro forma net loss attributable to common stockholders, basic and diluted	$ (18,983)
Denominator	
Weighted-average common shares outstanding, basic and diluted	1,921,073
Adjust: Conversion of convertible preferred stock	17,816,788
Adjust: Conversion of 2020 Notes	1,066,580
Weighted-average shares used in computing pro forma net loss per share, basic and diluted	20,804,441
Pro forma net loss per share attributable to common stockholders, basic and diluted	$ (0.91)

14. Segment Information

The chief operating decision maker for the Company is the Chief Executive Officer. The Company's Chief Executive Officer reviews financial information presented on a consolidated basis, accompanied by information about revenue by geographic region, for purposes of allocating resources and evaluating financial performance. The Company has one business activity and there are no segment managers who are held accountable for operations, operating results or plans for levels or components below the consolidated unit level. Accordingly, the Company has determined that it has a single reportable and operating segment structure. The Company's Chief Executive Officer evaluates performance based primarily on revenue in the geographic locations in which the Company operates.

Revenue by geographic area is based on the billing address of the customer. The following table sets forth the Company's revenue by geographic area (in thousands):

	Six Months Ended June 30,	
	2019	2020
Europe, Middle-East and Africa ("EMEA")	$ 8,743	$ 5,263
Asia Pacific	1,694	1,019
Other International	111	39
United States	2,596	5,970
Total	$ 13,144	$ 12,291

Long-lived assets by geographic area are based on physical location of those assets. The following table sets forth the Company's long-lived assets by geographic area (in thousands):

	December 31, 2019	June 30, 2020
United States	$ 852	$ 872
EMEA	40	33
Asia Pacific	10	9
Total	$ 902	$ 914

15. Subsequent Events

In preparing the unaudited interim consolidated financial statements for the six months ended June 30, 2019 and 2020, the Company has evaluated subsequent events through September 24, 2020, the date these unaudited interim consolidated financial statements were available for issuance.

Subsequent to June 30, 2020, the Company granted options for 834,871 shares of common stock, subject to service-based vesting conditions, with a weighted-average exercise price of $2.19 per share to employees.

In September 2020, the Company executed a sublease for an additional facility in Redwood City, California for a four-year term. The sublease agreement contains a rent free period through February 14, 2021, after which rent is approximately $0.1 million per month. The sublease agreement can be extended for an additional twelve month period, at the Company's option.

On September 22, 2020, the Company amended the number of authorized shares of common stock to 200,000,000 and the number of authorized shares of preferred stock to 22,874,341.

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Through and including , 2020 (the 25th day after the date of this prospectus), all dealers effecting transactions in the Common Stock, whether or not participating in this offering, may be required to deliver a prospectus. This delivery requirement is in addition to the dealer's obligation to deliver a prospectus when acting as an underwriter and with respect to unsold allotments or subscriptions.

Shares

Pulmonx Corporation

Common Stock

PROSPECTUS

BofA Securities

Morgan Stanley

Stifel

Wells Fargo Securities

Canaccord Genuity

, 2020

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution

The following table sets forth all costs and expenses to be incurred in connection with the offering described in this registration statement, other than underwriting discounts and commissions, payable by us in connection with the sale of the common stock being registered. All amounts shown are estimates except for the SEC registration fee, the FINRA filing fee and the exchange listing fee.

	Amount to be Paid
SEC Registration Fee	$ 15,923
FINRA filing fee	13,438
Exchange listing fee	170,000
Printing and engraving	200,000
Legal fees and expenses	1,800,000
Accounting fees and expenses	1,620,000
Transfer agent and registrar fees	4,000
Miscellaneous fees and expenses	1,176,639
Total	$ 5,000,000

Item 14. Indemnification of Directors and Officers.

We are incorporated under the laws of the State of Delaware. Section 102 of the Delaware General Corporation Law permits a corporation to eliminate the personal liability of directors of a corporation to the corporation or its stockholders for monetary damages for a breach of fiduciary duty as a director, except where the director breached his or her duty of loyalty, failed to act in good faith, engaged in intentional misconduct, or knowingly violated a law, authorized the payment of a dividend, or approved a stock repurchase in violation of Delaware corporate law or obtained an improper personal benefit.

Section 145 of the Delaware General Corporation Law provides that a corporation has the power to indemnify a director, officer, employee, or agent of the corporation and certain other persons serving at the request of the corporation in related capacities against expenses (including attorneys' fees), judgments, fines, and amounts paid in settlements actually and reasonably incurred by the person in connection with an action, suit, or proceeding to which such person is or is threatened to be made a party by reason of such position, if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the corporation, and, in any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful, except that, in the case of actions brought by or in the right of the corporation, no indemnification shall be made with respect to any claim, issue, or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or other adjudicating court determines that, despite the adjudication of liability but in view of all of the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

As permitted by the Delaware General Corporation Law, our amended and restated certificate of incorporation and amended and restated bylaws in effect upon the closing of this offering provide that: (1) we are required to indemnify our directors to the fullest extent permitted by the Delaware General Corporation Law; (2) we may, in our discretion, indemnify our officers, employees, and agents as set forth in the Delaware General Corporation Law; (3) we are required, upon satisfaction of certain conditions, to advance all expenses incurred by our directors in connection with certain legal proceedings; (4) the rights conferred in the bylaws are not exclusive; and (5) we are authorized to enter into indemnification agreements with our directors, officers, employees, and agents.

Our policy is to enter into agreements with our directors that require us to indemnify them against expenses, judgments, fines, settlements, and other amounts that any such person becomes legally obligated to pay (including with respect to a derivative action) in connection with any proceeding, whether actual or threatened, to which such person may be made a party by reason of the fact that such person is or was a director of us or any of our affiliates, provided such person acted in good faith and in a manner such person reasonably believed to be in, or not opposed to, our best interests. These indemnification agreements also set forth certain procedures that will apply in the event of a claim for indemnification thereunder. At present, no litigation or proceeding is pending that involves any of our directors regarding which indemnification is sought, nor are we aware of any threatened litigation that may result in claims for indemnification.

We maintain a directors' and officers' liability insurance policy. The policy insures directors and officers against unindemnified losses arising from certain wrongful acts in their capacities as directors and officers and reimburses us for those losses for which we have lawfully indemnified the directors and officers. The policy contains various exclusions.

In addition, the underwriting agreement filed as Exhibit 1.1 to this registration statement provides for indemnification by the underwriters, under certain conditions, of us and our officers and directors for certain liabilities arising under the Securities Act. Our amended and restated investors rights agreement with certain stockholders also provides for cross-indemnification in connection with the registration of our common stock on behalf of such investors.

Item 15. Recent Sales of Unregistered Securities.

The following list sets forth information regarding all unregistered securities issued by us since January 1, 2017 through the date of the prospectus that is a part of this registration statement. Also included is the consideration received by us for such shares and information relating to the section of the Securities Act, or rule of the SEC, under which exemption from registration was claimed.

Issuances of Common Stock and Options to Purchase Common Stock

From January 1, 2017 through September 23, 2020, we granted under our 2010 Stock Plan and 2020 Stock Plan options to purchase an aggregate of 2,694,275 shares of our common stock to employees, consultants, and directors, having exercise prices ranging from $1.30 to $5.00 per share. Of these, options to purchase an aggregate of 75,234 shares have been cancelled without being exercised. From January 1, 2017 through September 4, 2020, an aggregate of 122,900 shares of our common stock were issued upon the exercise of stock options under the 2000 Stock Plan, at exercise prices between $0.60 and $1.50 per share, for aggregate proceeds of approximately $0.1 million, an aggregate of 1,859,379 shares of our common stock were issued upon the exercise of stock options under the 2010 Stock Plan, at exercise prices between $1.30 and $2.40 per share, for aggregate proceeds of approximately $2.9 million and an aggregate of 2,500 shares of our common stock were issued upon the exercise of stock options under the 2020 Stock Plan, at an exercise price of $1.40 per share, for aggregate proceeds of approximately $3,500.

In April 2020, we issued and sold to investors convertible promissory notes in the aggregate principal amount of $33.0 million, with the option to call up to an additional $33.0 million; provided that any such call be for no less than $5.0 million. In connection with the completion of our initial public offering, the principal amount of the convertible promissory notes and accrued interest thereon will automatically convert into 2,650,773 shares of the Registrant's common stock, assuming an initial public offering price of $15.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, and an assumed closing date of this offering and conversion date of October 2, 2020.

The offers, sales, and issuances of the securities described in the preceding paragraph were deemed to be exempt from registration either under Rule 701 promulgated under the Securities Act (Rule 701) in that the transactions were under compensatory benefit plans and contracts relating to compensation, or under Section 4(a)(2) of the Securities Act in that the transactions were between an issuer and members of its senior executive management and did not involve any public offering within the meaning of Section 4(a)(2). The recipients of such securities were our employees, directors, or consultants and received the securities under our equity incentive plans. Appropriate legends were affixed to the securities issued in these transactions.

Issuances of Preferred Stock and Warrants

These securities were issued pursuant to the exemption from registration provided by Section 4(a)(2) of the Securities Act of 1933, as amended, in reliance on the recipient's status as an "accredited investor" as defined in Rule 501(a) of Regulation D.

In January 2017, we issued and sold an aggregate of 757,575 shares of Series F-1 Preferred Stock to one accredited investor at $13.20 per share for an aggregate consideration of approximately $9,999,999.24.

In April 2019, we issued and sold an aggregate of 4,934,231 shares of Series G-1 Preferred Stock to 18 accredited investors at $13.20 per share for an aggregate consideration of approximately $65,131,936.32.

None of the foregoing transactions involved any underwriters, underwriting discounts or commissions or any public offering.

Item 16. Exhibits and Financial Statement Schedules.

(a) Exhibits

The following documents are filed as exhibits to this registration statement.

Exhibit Number	Description of Document
1.1	Form of Underwriting Agreement.
3.1	Amended and Restated Certificate of Incorporation of Pulmonx Corporation, as currently in effect.
3.2	Form of Amended and Restated Certificate of Incorporation of Pulmonx Corporation, to be effective upon the closing of this offering.
3.3*	Amended and Restated Bylaws of Pulmonx Corporation, as currently in effect.
3.4	Form of Amended and Restated Bylaws of Pulmonx Corporation, to be effective upon the closing of this offering.
4.1	Form of common stock certificate of Pulmonx Corporation.
4.2*	Amended and Restated Investors' Rights Agreement by and among Pulmonx Corporation and certain of its stockholders, dated April 16, 2019.
5.1	Opinion of Cooley LLP.
10.1+*	2010 Stock Plan, as amended to date.
10.2+*	Forms of Notice of Stock Option Grant, Option Agreement, and Exercise Notice under 2010 Stock Plan.
10.3+	2020 Stock Plan, as amended to date.
10.4+*	Forms of Notice of Stock Option Grant, Option Agreement, and Exercise Notice under 2020 Stock Plan.
10.5+	2020 Equity Incentive Plan.
10.6+	Forms of Option Agreement and Notice of Stock Option Grant under 2020 Equity Incentive Plan.
10.7+	Form of Restricted Stock Unit Award Agreement under 2020 Equity Incentive Plan.
10.8+	2020 Employee Stock Purchase Plan.

10.9	Form of Indemnification Agreement by and between Pulmonx Corporation and each of its directors and executive officers.
10.10+*	Executive Employment Agreement, by and between Pulmonx Corporation and Glendon E. French, dated December 10, 2014.
10.11+*	Offer Letter Agreement, by and between Pulmonx Corporation and Geoffrey Beran Rose, dated December 11, 2014.
10.12+*	Offer Letter Agreement, by and between Pulmonx Corporation and Derrick Sung, Ph.D., dated March 12, 2019.
10.13+*	Consulting Agreement, by and between PulmonX International Sàrl and Orsco Life Sciences AG, dated October 1, 2013.
10.14+*	Amendment to Consulting Agreement, by and between PulmonX International Sàrl and Orsco Life Sciences AG, dated March 1, 2014.
10.15+*	Second Amendment to Consulting Agreement, by and between PulmonX International Sàrl and Orsco Life Sciences AG, dated July 14, 2014.
10.16+*	Third Amendment to Consulting Agreement, by and between PulmonX International Sàrl and Orsco Life Sciences AG, dated April 27, 2015.
10.17+*	Appointment Letter, by and between PulmonX International Sàrl and Oern R. Stuge, dated December 18, 2013.
10.18*	Office Lease, by and between Pulmonx Corporation and HCP LS Redwood City, LLC, dated September 4, 2009.
10.19*	First Amendment to Office Lease, by and between Pulmonx Corporation and HCP LS Redwood City, LLC, dated October 3, 2014.
10.20*	Second Amendment to Office Lease, by and between Pulmonx Corporation and HCP LS Redwood City, LLC, dated November 7, 2019.
10.21*	Sublease, by and between Pulmonx Corporation and Genomic Health, Inc., dated April 8, 2020.
10.22	First Amendment to Sublease Agreement, by and between Pulmonx Corporation and Genomic Health, Inc., dated September 10, 2020.
10.23*	Loan and Security Agreement, by and between Pulmonx Corporation and Canadian Imperial Bank of Commerce, dated February 20, 2020.
10.24*	First Amendment to Loan and Security Agreement, by and between Pulmonx Corporation and Canadian Imperial Bank of Commerce, dated April 17, 2020.
10.25*	Intellectual Property Security Agreement, by and between Pulmonx Corporation and Canadian Imperial Bank of Commerce, dated February 20, 2020.
10.26*	Note Purchase Agreement and Form of 2020 Note, by and between Pulmonx Corporation and the purchasers of the 2020 Notes, dated April 17, 2020.
21.1*	List of Subsidiaries of Registrant.
23.1	Consent of Cooley LLP (included in Exhibit 5.1).
23.2	Consent of BDO USA, LLP, independent registered public accounting firm.
24.1*	Power of Attorney.
99.1	Consent of Thomas W. Burns, as director nominee.
99.2	Consent of Georgia Garinois-Melenikiotou, as director nominee.

+ Indicates management contract or compensatory plan.
* Previously filed.

(b) Financial Statement Schedules

No financial statement schedules are provided because the information called for is not required or is shown either in the financial statements or notes.

Item 17. Undertakings.

The undersigned registrant hereby undertakes to provide to the underwriters at the closing specified in the underwriting agreement, certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers, and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer, or controlling person of the registrant in the successful defense of any action, suit, or proceeding) is asserted by such director, officer, or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

The undersigned registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this Registration Statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this Registration Statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Redwood City, State of California, on the 24th day of September, 2020.

PULMONX CORPORATION

By: /s/Glendon E. French
Glendon E. French
President, Chief Executive Officer and Director

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/Glendon E. French Glendon E. French	President, Chief Executive Officer and Director (Principal Executive Officer)	September 24, 2020
/s/Derrick Sung, Ph.D. Derrick Sung, Ph.D.	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	September 24, 2020
* Charles Chon	Director	September 24, 2020
* Richard Ferrari	Director	September 24, 2020
* Daniel Florin	Director	September 24, 2020
* Staffan Lindstrand	Director	September 24, 2020
* Michael Matly, M.D.	Director	September 24, 2020
* Dana G. Mead, Jr.	Director	September 24, 2020
* Stephen Salmon	Director	September 24, 2020

By: /s/Glendon E. French
Glendon E. French
Attorney-in-Fact

PULMONX CORPORATION

(a Delaware corporation)

[□] Shares of Common Stock

UNDERWRITING AGREEMENT

Dated: [●], 2020

PULMONX CORPORATION

(a Delaware corporation)

[●] Shares of Common Stock

UNDERWRITING AGREEMENT

[●], 2020

BofA Securities, Inc.
Morgan Stanley & Co. LLC

as Representatives of the several Underwriters

c/o BofA Securities, Inc.
One Bryant Park
New York, New York 10036

Morgan Stanley & Co. LLC
1585 Broadway
New York, New York 10036

Ladies and Gentlemen:

Pulmonx Corporation, a Delaware corporation (the “Company”), confirms its agreement with BofA Securities, Inc. (“BofA”), Morgan Stanley & Co. LLC (“Morgan Stanley”) and each of the other Underwriters named in Schedule A hereto (collectively, the “Underwriters,” which term shall also include any underwriter substituted as hereinafter provided in Section 10 hereof), for whom BofA and Morgan Stanley are acting as representatives (in such capacity, the “Representatives”), with respect to (i) the sale by the Company and the purchase by the Underwriters, acting severally and not jointly, of the respective numbers of shares of common stock, par value $0.001 per share, of the Company (“Common Stock”) set forth in Schedule A hereto and (ii) the grant by the Company to the Underwriters, acting severally and not jointly, of the option described in Section 2(b) hereof to purchase all or any part of [▯] additional shares of Common Stock. The aforesaid [▯] shares of Common Stock (the “Initial Securities”) to be purchased by the Underwriters and all or any part of the [▯] shares of Common Stock subject to the option described in Section 2(b) hereof (the “Option Securities”) are herein called, collectively, the “Securities.”

The Company understands that the Underwriters propose to make a public offering of the Securities as soon as the Representatives deem advisable after this Agreement has been executed and delivered.

The Company has filed with the Securities and Exchange Commission (the “Commission”) a registration statement on Form S-1 (No. 333-[▯]), including the related preliminary prospectus or prospectuses, covering the registration of the sale of the Securities under the Securities Act of 1933, as amended (the “1933 Act”). Promptly after execution and delivery of this Agreement, the Company will prepare and file a prospectus in accordance with the provisions of Rule 430A (“Rule 430A”) of the rules and regulations of the Commission under the 1933 Act (the “1933 Act Regulations”) and Rule 424(b)

(“Rule 424(b)”) of the 1933 Act Regulations. The information included in such prospectus that was omitted from such registration statement at the time it became effective but that is deemed to be part of such registration statement at the time it became effective pursuant to Rule 430A(b) is herein called the “Rule 430A Information.” Such registration statement, including the amendments thereto, the exhibits thereto and any schedules thereto, at the time it became effective, and including the Rule 430A Information, is herein called the “Registration Statement.” Any registration statement filed pursuant to Rule 462(b) of the 1933 Act Regulations is herein called the “Rule 462(b) Registration Statement” and, after such filing, the term “Registration Statement” shall include the Rule 462(b) Registration Statement. Each prospectus used prior to the effectiveness of the Registration Statement, and each prospectus that omitted the Rule 430A Information that was used after such effectiveness and prior to the execution and delivery of this Agreement, is herein called a “preliminary prospectus.” The final prospectus, in the form first furnished to the Underwriters for use in connection with the offering of the Securities, is herein called the “Prospectus.” For purposes of this Agreement, all references to the Registration Statement, any preliminary prospectus, the Prospectus or any amendment or supplement to any of the foregoing shall be deemed to include the copy filed with the Commission pursuant to its Electronic Data Gathering, Analysis and Retrieval system or any successor system (“EDGAR”).

As used in this Agreement:

“Applicable Time” means [□]:00 [P./A.]M., New York City time, on [□], 2020 or such other time as agreed by the Company and the Representatives.

“General Disclosure Package” means any Issuer General Use Free Writing Prospectuses issued at or prior to the Applicable Time, the most recent preliminary prospectus that is distributed to investors prior to the Applicable Time and the information included on Schedule B-1 hereto, all considered together.

“Issuer Free Writing Prospectus” means any “issuer free writing prospectus,” as defined in Rule 433 of the 1933 Act Regulations (“Rule 433”), including without limitation any “free writing prospectus” (as defined in Rule 405 of the 1933 Act Regulations (“Rule 405”)) relating to the Securities that is (i) required to be filed with the Commission by the Company, (ii) a “road show that is a written communication” within the meaning of Rule 433(d)(8)(i), whether or not required to be filed with the Commission, or (iii) exempt from filing with the Commission pursuant to Rule 433(d)(5)(i) because it contains a description of the Securities or of the offering that does not reflect the final terms, in each case in the form filed or required to be filed with the Commission or, if not required to be filed, in the form retained in the Company’s records pursuant to Rule 433(g).

“Issuer General Use Free Writing Prospectus” means any Issuer Free Writing Prospectus that is intended for general distribution to prospective investors (other than a “*bona fide* electronic road show,” as defined in Rule 433 (the “Bona Fide Electronic Road Show”), as evidenced by its being specified in Schedule B-2 hereto.

“Issuer Limited Use Free Writing Prospectus” means any Issuer Free Writing Prospectus that is not an Issuer General Use Free Writing Prospectus.

“Testing-the-Waters Communication” means any oral or written communication with potential investors undertaken in reliance on Section 5(d) of, or Rule 163B under, the 1933 Act.

"Written Testing-the-Waters Communication" means any Testing-the-Waters Communication that is a written communication within the meaning of Rule 405 under the 1933 Act.

SECTION 1. Representations and Warranties.

(a) *Representations and Warranties by the Company*. The Company represents and warrants to each Underwriter as of the date hereof, the Applicable Time, the Closing Time (as defined below) and any Date of Delivery (as defined below), and agrees with each Underwriter, as follows:

(i) Registration Statement and Prospectuses. Each of the Registration Statement and any amendment thereto has become effective under the 1933 Act. No stop order suspending the effectiveness of the Registration Statement or any post-effective amendment thereto has been issued under the 1933 Act, no order preventing or suspending the use of any preliminary prospectus or the Prospectus has been issued and no proceedings for any of those purposes have been instituted or are pending or, to the Company's knowledge, contemplated. The Company has complied with each request (if any) from the Commission for additional information.

Each of the Registration Statement and any post-effective amendment thereto, at the time it became effective, the Applicable Time, the Closing Time and any Date of Delivery complied and will comply in all material respects with the requirements of the 1933 Act and the 1933 Act Regulations. Each preliminary prospectus, the Prospectus and any amendment or supplement thereto, at the time each was filed with the Commission, and, in each case, at the Applicable Time, the Closing Time and any Date of Delivery complied and will comply in all material respects with the requirements of the 1933 Act and the 1933 Act Regulations. Each preliminary prospectus delivered to the Underwriters for use in connection with this offering and the Prospectus was or will be identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T.

(ii) Accurate Disclosure. Neither the Registration Statement, at its effective time, on the date hereof, at the Closing Time or at any Date of Delivery, contained, contains or will contain an untrue statement of a material fact or omitted, omits or will omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading. At the Applicable Time and any Date of Delivery, none of (A) the General Disclosure Package, (B) any individual Issuer Limited Use Free Writing Prospectus, when considered together with the General Disclosure Package and (C) any individual Written Testing-the-Waters Communication, when considered together with the General Disclosure Package, included, includes or will include an untrue statement of a material fact or omitted, omits or will omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. Neither the Prospectus nor any amendment or supplement thereto, as of its issue date and as of the date of such amendment or supplement, at the time of any filing with the Commission pursuant to Rule 424(b), at the Closing Time or at any Date of Delivery, included, includes or will include an untrue statement of a material fact or omitted, omits or will omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading.

The representations and warranties in this subsection shall not apply to statements in or omissions from the Registration Statement (or any amendment thereto), the General Disclosure Package or the Prospectus (or any amendment or supplement thereto) made in reliance upon and in conformity with written information furnished to the Company by any Underwriter through the Representatives expressly for use therein. For purposes of this Agreement, the only information so furnished shall be the information in the first paragraph under the heading "Underwriting–Commissions and Discounts," the information in the second, third and fourth paragraphs under the heading "Underwriting–Price Stabilization, Short Positions and Penalty Bids" and the information under the heading "Underwriting–Electronic Distribution" in each case contained in the Prospectus (collectively, the "Underwriter Information").

(iii) Issuer Free Writing Prospectuses. No Issuer Free Writing Prospectus conflicts or will conflict with the information contained in the Registration Statement or the Prospectus, and any preliminary or other prospectus deemed to be a part thereof that has not been superseded or modified. The Company has made available a Bona Fide Electronic Road Show in compliance with Rule 433(d)(8)(ii) such that no filing of any "road show" (as defined in Rule 433(h)) is required in connection with the offering of the Securities.

(iv) Testing-the-Waters Materials. The Company (A) has alone not engaged in any Testing-the-Waters Communication other than Testing-the-Waters Communications with the consent of the Representatives with entities that are qualified institutional buyers within the meaning of Rule 144A under the 1933 Act or institutions that are accredited investors within the meaning of Rule 501 under the 1933 Act and (B) has not authorized anyone other than the Representatives to engage in Testing-the-Waters Communications. The Company reconfirms that the Representatives have been authorized to act on its behalf in undertaking Testing-the-Waters Communications. The Company has not distributed any Written Testing-the-Waters Communications other than those listed on Schedule B-3 hereto.

(v) Company Not Ineligible Issuer. At the time of filing the Registration Statement and any post-effective amendment thereto, at the earliest time thereafter that the Company or another offering participant made a *bona fide* offer (within the meaning of Rule 164(h)(2) of the 1933 Act Regulations) of the Securities and at the date hereof, the Company was not and is not an "ineligible issuer," as defined in Rule 405, without taking account of any determination by the Commission pursuant to Rule 405 that it is not necessary that the Company be considered an ineligible issuer.

(vi) Emerging Growth Company Status. From the time of the initial confidential submission of the Registration Statement to the Commission (or, if earlier, the first date on which the Company engaged directly or through any Person authorized to act on its behalf in any Testing-the-Waters Communication) through the date hereof, the Company has been and is an "emerging growth company," as defined in Section 2(a) of the 1933 Act (an "Emerging Growth Company").

(vii) Independent Accountants. The accountants who certified the financial statements and supporting schedules included in the Registration Statement, the General Disclosure Package and the Prospectus are independent public accountants with respect to the Company as required by the 1933 Act, the 1933 Act Regulations and the Public Company Accounting Oversight Board.

(viii) Financial Statements. The financial statements included in the Registration Statement, the General Disclosure Package and the Prospectus, together with the related schedules and notes, present fairly, in all material respects, the financial position of the Company and its consolidated subsidiaries at the dates indicated and the statement of operations, stockholders’ equity and cash flows of the Company and its consolidated subsidiaries for the periods specified; said financial statements have been prepared in conformity with U.S. generally accepted accounting principles (“GAAP”) applied on a consistent basis throughout the periods involved, except in the case of unaudited, interim financial statements, subject to normal year-end audit adjustments and the exclusion of certain footnotes as permitted by the applicable rules of the Commission. The supporting schedules, if any, present fairly in accordance with GAAP the information required to be stated therein. The selected financial data and the summary financial information included in the Registration Statement, the General Disclosure Package and the Prospectus present fairly the information shown therein and have been compiled on a basis consistent with that of the audited financial statements included therein. Except as included therein, no historical or pro forma financial statements or supporting schedules are required to be included in the Registration Statement, the General Disclosure Package or the Prospectus under the 1933 Act or the 1933 Act Regulations.

(ix) No Material Adverse Change in Business. Except as otherwise stated therein, since the respective dates as of which information is given in the Registration Statement, the General Disclosure Package or the Prospectus, (A) there has been no material adverse change in the condition, financial or otherwise, or in the earnings, business affairs or business prospects of the Company and its subsidiaries considered as one enterprise, whether or not arising in the ordinary course of business (a “Material Adverse Effect”), (B) there have been no transactions entered into by the Company or any of its subsidiaries, other than those in the ordinary course of business, which are material with respect to the Company and its subsidiaries considered as one enterprise, and (C) there has been no dividend or distribution of any kind declared, paid or made by the Company on any class of its capital stock.

(x) Good Standing of the Company. The Company has been duly incorporated and is validly existing as a corporation in good standing under the laws of the State of Delaware and has corporate power and authority to own, lease and operate its properties and to conduct its business as described in the Registration Statement, the General Disclosure Package and the Prospectus and to enter into and perform its obligations under this Agreement; and the Company is duly qualified as a foreign corporation to transact business and is in good standing in each other jurisdiction (or such equivalent concept to the extent it exists under the laws of such jurisdiction) in which such qualification is required, whether by reason of the ownership or leasing of property or the conduct of business, except where the failure so to qualify or to be in good standing would not, singly or in the aggregate, result in a Material Adverse Effect.

(xi) Good Standing of Subsidiaries. Each “significant subsidiary” of the Company (as such term is defined in Rule 1-02 of Regulation S-X) (each, a “Subsidiary” and, collectively, the “Subsidiaries”) has been duly organized and is validly existing in good standing under the laws of the jurisdiction of its incorporation or organization (to the extent the concept of “good standing” is applicable in each such jurisdiction), has corporate or similar power and authority to own, lease and operate its properties and to conduct its business as described in the Registration Statement, the General Disclosure Package and the Prospectus and is duly qualified to transact business and is in good standing in each jurisdiction in which such qualification is required (to the extent the concepts of “qualification to transact business” and “good standing” are applicable in each such jurisdiction), whether by reason of the ownership or leasing of property or the conduct of business, except where the failure to so qualify or to be in good standing would not, singly or in the aggregate, result in a Material Adverse Effect. Except as otherwise disclosed in the Registration Statement, the General Disclosure Package and the Prospectus, all of the issued and outstanding capital stock of each Subsidiary has been duly authorized and validly issued, is fully paid and non-assessable (to the extent such concepts are applicable in each such jurisdiction) and is owned by the Company, directly or through subsidiaries, free and clear of any security interest, mortgage, pledge, lien, encumbrance, claim or equity. None of the outstanding shares of capital stock of any Subsidiary were issued in violation of the preemptive or similar rights of any securityholder of such Subsidiary. The only subsidiaries of the Company are (A) the subsidiaries listed on Exhibit 21 to the Registration Statement and (B) certain other subsidiaries which, considered in the aggregate as a single subsidiary, do not constitute a "significant subsidiary" as defined in Rule 1-02 of Regulation S-X.

(xii) Capitalization. The authorized, issued and outstanding shares of capital stock of the Company are as set forth in the Registration Statement, the General Disclosure Package and the Prospectus in the column entitled "Actual" under the caption "Capitalization" (except for subsequent issuances, if any, pursuant to this Agreement, pursuant to reservations, agreements or employee benefit plans referred to in the Registration Statement, the General Disclosure Package and the Prospectus or pursuant to the exercise of convertible securities or options referred to in the Registration Statement, the General Disclosure Package and the Prospectus). The outstanding shares of capital stock of the Company have been duly authorized and validly issued and are fully paid and non-assessable. None of the outstanding shares of capital stock of the Company were issued in violation of the preemptive or other similar rights of any securityholder of the Company.

(xiii) Authorization of Agreement. This Agreement has been duly authorized, executed and delivered by the Company.

(xiv) Authorization and Description of Securities. The Securities to be purchased by the Underwriters from the Company have been duly authorized for issuance and sale to the Underwriters pursuant to this Agreement and, when issued and delivered by the Company pursuant to this Agreement against payment of the consideration set forth herein, will be validly issued and fully paid and non-assessable; and the issuance of the Securities is not subject to the preemptive or other similar rights of any securityholder of the Company, except as have been duly and validly waived in writing as of the date of this Agreement. The Common Stock conforms to all statements relating thereto contained in the Registration Statement, the General Disclosure Package and the Prospectus and such description conforms, in all material respects, to the rights set forth in the instruments defining the same. No holder of Securities will be subject to personal liability solely by reason of being such a holder.

(xv) Registration Rights. There are no persons with registration rights or other similar rights to have any securities registered for sale pursuant to the Registration Statement or otherwise registered for sale or sold by the Company under the 1933 Act pursuant to this Agreement, other than those rights that have been disclosed in the Registration Statement, the General Disclosure Package and the Prospectus and have been waived.

(xvi) Absence of Violations, Defaults and Conflicts. Neither the Company nor any of its subsidiaries is (A) in violation of its charter, by-laws or similar organizational document, (B) in default in the performance or observance of any obligation, agreement, covenant or condition contained in any contract, indenture, mortgage, deed of trust, loan or credit agreement, note, lease or other agreement or instrument to which the Company or any of its subsidiaries is a party or by which it or any of them may be bound or to which any of the properties or assets of the Company or any subsidiary is subject (collectively, "Agreements and Instruments"), except for such defaults that would not, singly or in the aggregate, result in a Material Adverse Effect, or (C) in violation of any law, statute, rule, regulation, judgment, order, writ or decree of any arbitrator, court, governmental body, regulatory body, administrative agency or other authority, body or agency having jurisdiction over the Company or any of its subsidiaries or any of their respective properties, assets or operations (each, a “Governmental Entity”), except for such violations that would not, singly or in the aggregate, result in a Material Adverse Effect. The execution, delivery and performance of this Agreement and the consummation of the transactions contemplated herein and in the Registration Statement, the General Disclosure Package and the Prospectus (including the issuance and sale of the Securities and the use of the proceeds from the sale of the Securities as described therein under the caption “Use of Proceeds”) and compliance by the Company with its obligations hereunder have been duly authorized by all necessary corporate action and do not and will not, whether with or without the giving of notice or passage of time or both, conflict with or constitute a breach of, or default or Repayment Event (as defined below) under, or result in the creation or imposition of any lien, charge or encumbrance upon any properties or assets of the Company or any subsidiary pursuant to, the Agreements and Instruments (except for such conflicts, breaches, defaults or Repayment Events or liens, charges or encumbrances that would not, singly or in the aggregate, result in a Material Adverse Effect), nor will such action result in any violation of the provisions of the charter, by-laws or similar organizational document of the Company or any of its subsidiaries or any law, statute, rule, regulation, judgment, order, writ or decree of any Governmental Entity. As used herein, a “Repayment Event” means any event or condition which gives the holder of any note, debenture or other evidence of indebtedness (or any person acting on such holder’s behalf) the right to require the repurchase, redemption or repayment of all or a portion of such indebtedness by the Company or any of its subsidiaries.

(xvii) Absence of Labor Dispute. No labor dispute with the employees of the Company or any of its subsidiaries exists or, to the knowledge of the Company, is imminent, and the Company is not aware of any existing or imminent labor disturbance by the employees of any of its or any subsidiary’s principal suppliers, manufacturers, customers or contractors, which, in either case, would, singly or in the aggregate, result in a Material Adverse Effect.

(xviii) Absence of Proceedings. Except as disclosed in the Registration Statement, the General Disclosure Package and the Prospectus, there is no action, suit, proceeding, inquiry or investigation before or brought by any Governmental Entity (including, without limitation, the U.S. Food and Drug Administration (the “FDA”) now pending or, to the knowledge of the Company, threatened, against or affecting the Company or any of its subsidiaries, which would, singly or in the aggregate, result in a Material Adverse Effect, or which would materially and adversely affect their respective properties or assets or the consummation of the transactions contemplated in this Agreement or the performance by the Company of its obligations hereunder; and the aggregate of all pending legal or governmental actions, suits, inquiries, investigations or proceedings to which the Company or any such subsidiary is a party or of which any of their respective properties or assets is the subject which are not described in the Registration Statement, the General Disclosure Package and the Prospectus, including ordinary routine litigation incidental to the business, would not, singly or in the aggregate, result in a Material Adverse Effect.

(xix) Accuracy of Exhibits. There are no contracts or documents which are required to be described in the Registration Statement, the General Disclosure Package or the Prospectus or to be filed as exhibits to the Registration Statement which have not been so described and filed as required.

(xx) Absence of Further Requirements. No filing with, or authorization, approval, consent, license, order, registration, qualification or decree of, any Governmental Entity is necessary or required for the performance by the Company of its obligations hereunder, in connection with the offering, issuance or sale of the Securities hereunder or the consummation of the transactions contemplated by this Agreement, except (A) such as have been already obtained or as may be required under the 1933 Act, the 1933 Act Regulations, the rules of the Nasdaq Global Market, state securities laws or the rules of FINRA, and (B) such as which the failure to obtain would not, singly or in the aggregate, impair the power or ability of the Company to perform its obligations under this Agreement or consummate the transactions contemplated.

(xxi) Possession of Licenses and Permits. The Company and its subsidiaries possess such permits, licenses, approvals, clearances, certificates, consents and other authorizations (collectively, "Governmental Licenses") issued by the appropriate Governmental Entities necessary to conduct the business now operated by them (including, without limitation, all such permits, licenses, approvals, clearances, certificates, consents and other authorizations required by the FDA or any other federal, state, local or foreign agencies or bodies engaged in the regulation of clinical trials, medical devices or activities related to the business now operated by the Company and its subsidiaries), except where the failure so to possess would not, singly or in the aggregate, result in a Material Adverse Effect. The Company and its subsidiaries are in compliance with the terms and conditions of all Governmental Licenses, except where the failure so to comply would not, singly or in the aggregate, result in a Material Adverse Effect. All of the Governmental Licenses are valid and in full force and effect, except when the invalidity of such Governmental Licenses or the failure of such Governmental Licenses to be in full force and effect would not, singly or in the aggregate, result in a Material Adverse Effect. Neither the Company nor any of its subsidiaries has received any notice of proceedings relating to the revocation or modification of any Governmental Licenses which, singly or in the aggregate, if the subject of an unfavorable decision, ruling or finding, would result in a Material Adverse Effect. The Company and its subsidiaries (i) are, and at all times have been, in compliance with all statutes, rules and regulations applicable to the ownership, testing, development, manufacture, packaging, processing, use, distribution, storage, import or export of any product manufactured or distributed by them ("Applicable Laws"), except where such noncompliance would not, singly or in the aggregate, result in a Material Adverse Effect; and (ii) have not received any FDA Form 483, written notice of adverse finding, warning letter, untitled letter or other correspondence or written notice from any court or arbitrator or governmental or regulatory authority alleging or asserting noncompliance with (x) any Applicable Laws or (y) any Governmental Licenses required by any such Applicable Laws, except where being in contravention of any of the foregoing representations or warranties, singly or in the aggregate, would not result in a Material Adverse Effect.

(xxii) Title to Property. The Company and its subsidiaries have good and marketable title to all personal properties owned by them, in each case, free and clear of all mortgages, pledges, liens, security interests, claims, restrictions or encumbrances of any kind except such as (A) are described in the Registration Statement, the General Disclosure Package and the Prospectus or (B) do not, singly or in the aggregate, materially affect the value of such property and do not interfere with the use made and proposed to be made of such property by the Company or any of its subsidiaries; and all of the leases and subleases material to the business of the

Company and its subsidiaries, considered as one enterprise, and under which the Company or any of its subsidiaries holds properties described in the Registration Statement, the General Disclosure Package or the Prospectus, are in full force and effect, and neither the Company nor any such subsidiary has any notice of any material claim of any sort that has been asserted by anyone adverse to the rights of the Company or any subsidiary under any of the leases or subleases mentioned above, or affecting or questioning the rights of the Company or such subsidiary to the continued possession of the leased or subleased premises under any such lease or sublease.

(xxiii) Possession of Intellectual Property. The Company and its subsidiaries own or possess, have a valid license to, or can acquire on reasonable terms, inventions, patent applications, patents, registered or unregistered trademarks, trade names, service names, copyrights (including in software), Internet domain names, trade secrets and other intellectual property, and any applications (including provisional applications), registrations or renewals for any of the foregoing, together with any goodwill associated with any of the foregoing (collectively, "Intellectual Property") necessary to carry on the business now operated by them and as proposed to be conducted as described in the Registration Statement, the General Disclosure Package and the Prospectus. Neither the Company nor any of its subsidiaries has received any written notice of nor, to the Company's knowledge, has engaged in any infringement, misappropriation or other violation of or conflict with any Intellectual Property of any third party, there is no pending or threatened (in writing) action, suit, proceeding or claim regarding the subject matter of the foregoing. All Intellectual Property owned by or exclusively licensed to the Company or any of its subsidiaries (such Intellectual Property, the "Company Intellectual Property") is subsisting and, to the Company's knowledge, is valid and enforceable. There is no pending or threatened (in writing) action, suit, proceeding or claim by any third party challenging the Company's rights in or the validity, ownership, registrability, enforceability or scope of any such Company Intellectual Property. To the Company's knowledge, no third party is infringing, misappropriating or otherwise violating any of the Company Intellectual Property and there is no pending or threatened action, suit, proceeding or claim by the Company or any of its subsidiaries against a third party regarding the foregoing. The Company and its subsidiaries have complied in all material respects with the terms of each agreement pursuant to which Intellectual Property has been licensed to the Company or its subsidiaries, neither the Company nor any of its subsidiaries has received any written notice alleging any such noncompliance and are unaware of any facts which would form a reasonable basis for any such claim, and all such agreements are in full force and effect. No Intellectual Property has been obtained or is being used by the Company in violation of any contractual obligations binding on the Company except for such violations that would not, singly or in the aggregate, result in a Material Adverse Effect. All Company Intellectual Property has been duly maintained and is in full force and effect and, to the Company's knowledge, there are no material defects in any of the Company Intellectual Property. Each person who is or was an employee or contractor of the Company or any of its subsidiaries and who is, was or is expected to be involved in the creation or development of any Intellectual Property for or on behalf of the Company has executed a valid agreement effectively assigning to the Company or any of its subsidiaries all of such person's rights in and to such Intellectual Property and, to the Company's knowledge, no employee of the Company or any of its subsidiaries is in or has ever been in violation of any term of any agreement with or covenant to a former employer where the basis of such violation relates to such employee's employment with the Company or any of its subsidiaries or actions undertaken by the employee while employed with the Company or any of its subsidiaries. The Company and its subsidiaries have taken the reasonable steps necessary to maintain and protect the confidentiality of the material trade secrets and other material confidential Intellectual Property used in connection with the business of the Company and its subsidiaries and, to the Company's knowledge, the confidentiality of such material trade secrets and material confidential Intellectual Property has not been compromised or disclosed to or accessed by any third party except pursuant to appropriate nondisclosure and confidentiality agreements. No university, military, educational institution, research center, Governmental Authority or other organization has funded or sponsored research and development conducted in connection with the business of the Company or any of its subsidiaries that (i) has any claim of right to, ownership of or other lien on any Company Intellectual Property or (ii) would affect the proprietary nature of any Company Intellectual Property or restrict the ability of the Company or any of its subsidiaries to enforce, license or exclude others from using any Company Intellectual Property.

(xxiv)Environmental Laws. Except as would not, singly or in the aggregate, result in a Material Adverse Effect, (A) neither the Company nor any of its subsidiaries is in violation of any federal, state, local or foreign statute, law, rule, regulation, ordinance, code, policy or rule of common law or any judicial or administrative interpretation thereof, including any judicial or administrative order, consent, decree or judgment, relating to pollution or protection of human health, the environment (including, without limitation, ambient air, surface water, groundwater, land surface or subsurface strata) or wildlife, including, without limitation, laws and regulations relating to the release or threatened release of chemicals, pollutants, contaminants, wastes, toxic substances, hazardous substances, radioactive substances, per or poly fluoroalkyl substances, petroleum, or exposure to, petroleum products, asbestos-containing materials or mold (collectively, "Hazardous Materials") or to the manufacture, processing, distribution, use, treatment, storage, disposal, transport or handling of Hazardous Materials (collectively, "Environmental Laws"), (B) the Company and its subsidiaries have all permits, authorizations and approvals required under any applicable Environmental Laws and are each in compliance with their requirements, (C) there are no pending or, to the Company's knowledge, threatened administrative, regulatory or judicial actions, suits, demands, demand letters, claims, liens, notices of noncompliance or violation, investigations or proceedings relating to any Environmental Law against the Company or any of its subsidiaries and (D) to the Company's knowledge, there are no events or circumstances that would reasonably be expected to form the basis of an order for clean-up or remediation, or an action, suit or proceeding by any private party or Governmental Entity, against or affecting the Company or any of its subsidiaries relating to Hazardous Materials or any Environmental Laws.

(xxv) Accounting Controls. The Company and each of its subsidiaries maintain effective internal control over financial reporting (as defined under Rules 13-a15 and 15d-15 under the 1934 Act Regulations) and a system of internal accounting controls sufficient to provide reasonable assurances that (A) transactions are executed in accordance with management's general or specific authorization; (B) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain accountability for assets; (C) access to assets is permitted only in accordance with management's general or specific authorization; and (D) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences. Except as described in the Registration Statement, the General Disclosure Package and the Prospectus, since the end of the Company's most recent audited fiscal year, there has been (1) no material weakness in the Company's internal control over financial reporting (whether or not remediated) and (2) no change in the Company's internal control over financial reporting that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

(xxvi)Compliance with the Sarbanes-Oxley Act. The Company has taken all necessary actions to ensure that, upon the effectiveness of the Registration Statement, it will be in compliance with all provisions of the Sarbanes-Oxley Act of 2002 and all rules and regulations promulgated thereunder or implementing the provisions thereof (the "Sarbanes-Oxley Act") that are then in effect and with which the Company is required to comply as of the effectiveness of the Registration Statement, and is actively planning to take reasonable steps to ensure that it will be in compliance with other provisions of the Sarbanes-Oxley Act not currently in effect, upon the effectiveness of such provisions, or which will become applicable to the Company at all times after the effectiveness of the Registration Statement.

(xxvii) Payment of Taxes. All United States federal, state, local and non-U.S. income tax returns of the Company and its subsidiaries required by law to be filed (taking into account any timely requested extensions thereof) have been filed and all taxes shown by such returns or otherwise assessed, which are due and payable, have been paid, except assessments against which appeals have been or will be promptly taken and as to which adequate reserves have been provided in accordance with GAAP by the Company, and except insofar as the failure to file such returns and pay such taxes would not, singly or in the aggregate, result in a Material Adverse Effect. The United States federal, state, local and non-U.S. income tax returns of the Company and its subsidiaries through the fiscal year ended December 31, 2018 have been settled and no assessment in connection therewith has been made against the Company or its subsidiaries, as applicable. The Company and its subsidiaries have filed all other tax returns that are required to have been filed by them pursuant to applicable foreign, federal, state, local or other law except insofar as the failure to file such returns would not result in a Material Adverse Effect, and has paid all taxes due pursuant to such returns or pursuant to any assessment received by the Company and its subsidiaries, except for such taxes, if any, as are being contested in good faith and as to which adequate reserves have been established by the Company, and except insofar as the failure to pay such taxes would not result in a Material Adverse Effect. The charges, accruals and reserves on the books of the Company in respect of any income and corporation tax liability for any years not finally determined are adequate to meet any assessments or re-assessments for additional income tax for any years not finally determined, except to the extent of any inadequacy that would not, singly or in the aggregate, result in a Material Adverse Effect.

(xxviii) Insurance. The Company and its subsidiaries carry or are entitled to the benefits of insurance, with financially sound and reputable insurers, in such amounts and covering such risks as is generally maintained by companies of established repute and comparable size engaged in the same or similar business, and all such insurance is in full force and effect. The Company has no reason to believe that it or any of its subsidiaries will not be able (A) to renew its existing insurance coverage as and when such policies expire or (B) to obtain comparable coverage from similar institutions as may be necessary or appropriate to conduct its business as now conducted and at a cost that would not, singly or in the aggregate, result in a Material Adverse Effect. Neither of the Company nor any of its subsidiaries has been denied any insurance coverage which it has sought or for which it has applied.

(xxix)Investment Company Act. The Company is not required, and upon the issuance and sale of the Securities as herein contemplated and the application of the net proceeds therefrom as described in the Registration Statement, the General Disclosure Package and the Prospectus will not be required, to register as an "investment company" under the Investment Company Act of 1940, as amended (the "1940 Act").

(xxx) Absence of Manipulation. Neither the Company nor any affiliate of the Company has taken, nor will the Company or any affiliate take, directly or indirectly, any action which is designed, or would reasonably be expected, to cause or result in, or which constitutes, the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Securities or to result in a violation of Regulation M under the 1934 Act.

(xxxi)Anti-Corruption Laws. None of the Company, any of its subsidiaries, or, to the knowledge of the Company, any director, officer, agent, employee, affiliate or other person acting on behalf of the Company or any of its subsidiaries is aware of or has taken any action, directly or indirectly, that would result in a violation by such persons of the Foreign Corrupt Practices Act of 1977, as amended, and the rules and regulations thereunder (the "FCPA") including, without limitation, making use of the mails or any means or instrumentality of interstate commerce corruptly in furtherance of an offer, payment, promise to pay or authorization of the payment of any money, or other property, gift, promise to give, or authorization of the giving of anything of value to any "foreign official" (as such term is defined in the FCPA) or any foreign political party or official thereof or any candidate for foreign political office, in contravention of the FCPA. Neither the Company nor any of its subsidiaries, or, to the knowledge of the Company, any director, officer, agent, employee, controlled affiliate or other person acting on behalf of the Company or any of its subsidiaries has (A) violated or is in violation of or committed an offense under any provision of the Bribery Act 2010 of the United Kingdom or any other applicable anti-bribery or anti-corruption law or (B) made or taken an act in furtherance of an offer, payment, promise, or authorization of the direct or indirect payment of any money benefit to any foreign or domestic government official or employee, including of any government-owned or controlled entity or of a public international organization, or any person acting in an official capacity for on behalf of any of the foregoing, or any foreign political party or official thereof or any candidate for foreign political office, in contravention of any applicable anti-bribery or anti-corruption law. The Company and, to the knowledge of the Company, its subsidiaries have instituted and maintain policies and procedures designed to ensure, and which are reasonably expected to continue to ensure, compliance with all applicable anti-bribery and anti-corruption laws.

(xxxii) Money Laundering Laws. The operations of the Company and its subsidiaries are and have been conducted at all times in compliance with applicable financial recordkeeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, the money laundering statutes of all applicable jurisdictions, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any Governmental Entity (collectively, the "Money Laundering Laws"); and no action, suit or proceeding by or before any Governmental Entity involving the Company or any of its subsidiaries with respect to the Money Laundering Laws is pending or, to the best knowledge of the Company, threatened.

(xxxiii) OFAC. None of the Company, any of its subsidiaries or, to the knowledge of the Company, any director, officer, agent, employee, affiliate or representative of the Company or any of its subsidiaries is an individual or entity ("Person") currently the subject or target of any applicable sanctions administered or enforced by the United States Government, including, without limitation, the U.S. Department of the Treasury's Office of Foreign Assets

Control ("OFAC"), the United Nations Security Council ("UNSC"), the European Union, Her Majesty's Treasury ("HMT"), or other relevant sanctions authority (collectively, "Sanctions"), nor is the Company located, organized or resident in a country or territory that is the subject of Sanctions; and the Company will not directly or indirectly use the proceeds of the sale of the Securities, or lend, contribute or otherwise make available such proceeds to any subsidiaries, joint venture partners or other Person, to fund any unauthorized activities of or business with any Person, or in any country or territory, that, at the time of such funding, is the subject of Sanctions or in any other manner that will result in a violation by any Person (including any Person participating in the transaction, whether as underwriter, advisor, investor or otherwise) of Sanctions.

(xxxiv) Lending Relationship. Except as disclosed in the Registration Statement, the General Disclosure Package and the Prospectus, the Company (i) does not have any material lending or other relationship with any bank or lending affiliate of any Underwriter and (ii) does not intend to use any of the proceeds from the sale of the Securities to repay any outstanding debt owed to any affiliate of any Underwriter.

(xxxv) Statistical and Market-Related Data. Any statistical and market-related data included in the Registration Statement, the General Disclosure Package or the Prospectus are based on or derived from sources that the Company believes, after reasonable inquiry, to be reliable and accurate and, to the extent required, the Company has obtained the written consent to the use of such data from such sources.

(xxxvi) Information Technology, Cybersecurity and Data Protection. (A) To the Company's knowledge and except for any security breach, incident, or other compromise that has been remedied without material cost or liability, there has been no security breach or incident, unauthorized access or disclosure, or other compromise of the Company's or its subsidiaries' information technology and computer systems, networks, hardware, software, data and databases (including personally identifiable information and the data and information of their respective patients, customers, employees, suppliers, vendors and any third party data maintained, processed or stored by the Company or its subsidiaries, and any such data processed or stored by third parties on behalf of the Company or its subsidiaries), equipment or technology (collectively, "IT Systems and Data"); (B) neither the Company nor its subsidiaries have been notified of, nor have any knowledge of any event or condition that could result in, any security breach or incident, unauthorized access or disclosure of or other compromise to their IT Systems and Data and (C) the Company and its subsidiaries have taken commercially reasonable steps to implement appropriate controls, policies, procedures, and technological safeguards designed to maintain and protect the integrity, continuous operation, redundancy, disaster recovery and security of their IT Systems and Data, or as required by applicable regulatory standards. The IT Systems and Data are adequate and operational in all material respects for, in accordance with their documentation and functional specifications, the business of the Company and its subsidiaries as now operated and as currently proposed to be conducted as described in the Registration Statement, the General Disclosure Package and the Prospectus. None of the software developed or owned by the Company or its subsidiaries is subject to any escrow obligation or any condition, obligation or other requirement that it be licensed pursuant to a free or open source software license or that the source code for such software be delivered, disclosed, licensed or otherwise made available to any other Person. The Company and its subsidiaries are presently in compliance in all material respects with all applicable laws or statutes and all judgments, orders, rules and regulations of any court or arbitrator or governmental or regulatory authority, internal policies and contractual obligations relating to the privacy and security of IT Systems and Data, including the collection, use, transfer, processing, disposal, disclosure, handling, storage and analysis of personally identifiable information, protected health information, consumer information and other confidential information of the Company, its subsidiaries and any third parties in their possession ("Sensitive Company Data"), and to the protection of such IT Systems and Data from unauthorized use, access, misappropriation or modification. The Company and its subsidiaries have taken the reasonable steps necessary to maintain the confidentiality of the Sensitive Company Data. The Company and its subsidiaries have not received any notice, claim, complaint, demand or letter from any person in respect of their businesses under applicable data security and data protection laws and regulations and industry standards regarding misuse, loss, unauthorized destruction or unauthorized disclosure of any Sensitive Company Data. To the Company's knowledge, there has been no unauthorized or illegal use of or access to any Sensitive Company Data by any third party. The Company and its subsidiaries have not been required to notify any individual or data protection authority of any information security breach, compromise or incident involving Sensitive Company Data.

(xxxvii) No Rated Securities. Neither the Company nor its subsidiaries have any debt securities or preferred stock that are rated by any "nationally recognized statistical rating agency" (as defined in Section 3(a)(62) of the 1934 Act).

(xxxviii) ERISA Compliance. The Company and its subsidiaries and any "Employee Benefit Plan" (as defined under the Employee Retirement Income Security Act of 1974, as amended, and the regulations and published interpretations promulgated thereunder (collectively, "ERISA")) for which the Company, its subsidiaries or its or their "ERISA Affiliates" (as defined below) would have any liability (each, a "Plan") are in compliance in all material respects with ERISA and each Plan has been maintained in compliance with its terms and the requirements of any applicable statutes, orders, rules and regulations, including but not limited to, ERISA and the Internal Revenue Code of 1986, as amended, and the regulations and published interpretations thereunder (the "Code"). "ERISA Affiliate" means, with respect to the Company, any member of any group of organizations described in Sections 414(b), (c), (m) or (o) of the Code of which the Company or such subsidiary is a member. No "reportable event" (as defined under ERISA) has occurred or is reasonably expected to occur with respect to any Plan. No Plan, if such Plan were terminated, would have any "amount of unfunded benefit liabilities" (as defined under ERISA), as the fair market value of the assets under each Plan (excluding for these purposes accrued but unpaid contributions) exceeds the present value of all benefits accrued under such Plan (determined based on those assumptions used to fund such Plan). Neither the Company, its subsidiaries nor any of its or their ERISA Affiliates has incurred or reasonably expects to incur any obligation or liability under (i) Title IV of ERISA with respect to termination of, or withdrawal from, any Plan, (ii) Sections 412 and 430, 4971, 4975 or 4980B of the Code or (iii) Sections 302 and 303, 406, 4063 and 4064 of ERISA. Each Plan that is intended to be qualified under Section 401(a) of the Code is so qualified and, nothing has occurred, whether by action or failure to act, which would cause the loss of such qualification. There is no pending audit or investigation by the Internal Revenue Service, the U.S. Department of Labor, the Pension Benefit Guaranty Corporation or any other governmental or foreign regulatory entity or agency with respect to any Plan that could reasonably be expected to result in liability to the Company or any of its subsidiaries. Neither the Company nor any of its subsidiaries have any "accumulated post-retirement benefit obligations" (within the meaning of Statement of Financial Accounting Standards 106).

(xxxix) Regulatory Matters. Except as described in the Registration Statement, the General Disclosure Package and the Prospectus: (i) neither the Company nor its subsidiaries has received any written notice of adverse filing, warning letter, untitled letter or other correspondence or notice from the FDA or other relevant regulatory authorities, or any other court or arbitrator or federal, state, local or foreign governmental or regulatory authority, alleging or asserting material noncompliance with the Federal Food, Drug and Cosmetic Act (21 U.S.C. § 301 et seq.), as amended, and the regulations promulgated thereunder (the "FFDCA"), the Anti-Kickback Statute (42 U.S.C. Section 1320a-7b(b)), the Civil Monetary Penalties Law (42 U.S.C. § 1320a-7a), the Physician Payments Sunshine Act (42 U.S.C. § 1320a-7h), the Civil False Claims Act (31 U.S.C. Section 3729 et seq.), the criminal False Claims Law (42 U.S.C. § 1320a-7b(a)), all criminal laws relating to health care fraud and abuse, including but not limited to 18 U.S.C. Sections 286 and 287, and the health care fraud criminal provisions under the U.S. Health Insurance Portability and Accountability Act of 1996 ("HIPAA") (42 U.S.C. Section 1320d et seq.), the exclusion law (42 U.S.C. § 1320a-7), HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act (42 U.S.C. Section 17921 et seq.), Medicare (Title XVIII of the Social Security Act), Medicaid (Title XIX of the Social Security Act), and any and all other similar state, local, federal or foreign law or regulations promulgated pursuant to such laws, including all laws and regulations applicable to ownership, testing, development, manufacture, packaging, processing, use, distribution, storage, import or export of the Company's products, each as amended from time to time (collectively, "Health Care Laws"); (ii) the Company and its subsidiaries are and have been in compliance in all material respects with applicable Health Care Laws; (iii) neither the Company nor its subsidiaries received written notice of any claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action from any U.S. or non-U.S. federal, national, state, local or other governmental or regulatory authority, governmental or regulatory agency or body, court, arbitrator or self-regulatory organization (each, a "Governmental Authority") or third party alleging that any product operation or activity is in violation of any Health Care Laws and, to the Company's knowledge, no such claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action is threatened; (iv) the Company and its subsidiaries have filed, obtained, maintained or submitted all reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments as required by applicable Health Care Laws, and that all such reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments were complete, correct and not misleading on the date filed (or were corrected or supplemented by a subsequent submission), except where the failure to so file would not result in a Material Adverse Effect; (v) neither the Company nor its subsidiaries or any of their respective directors, officers, employees or agents is or has been debarred, suspended or excluded, or has been convicted of any crime or engaged in any conduct that would result in a debarment, suspension or exclusion from any federal or state government health care program or, to the knowledge of the Company, is subject to a governmental inquiry, investigation, proceeding, or other similar action that could reasonably be expected to result in debarment, suspension, or exclusion; and (vi) the Company is not a party to and the Company does not have any ongoing reporting obligations pursuant to, any corporate integrity agreements, deferred prosecution agreements, monitoring agreements, consent decrees, settlement orders, plans of correction or similar agreements with or imposed by an Governmental Authority, in each case except as would not result in a Material Adverse Effect.

(xl) Research Studies and Trials. The research studies and trials conducted by, on behalf of or sponsored by the Company or its subsidiaries, or in which the Company or its subsidiaries has participated, that are described in, or the results of which are referred to in, the

Registration Statement, the General Disclosure Package and the Prospectus, or the results of which are referred to in the Registration Statement, the General Disclosure Package and the Prospectus, as applicable, were, and if still pending are, being conducted in accordance with the experimental protocols established for each study or trial, as well as any conditions of approval and policies imposed by any institutional review board, ethics review board or committee responsible for the oversight of such studies and trials, and all applicable local, state and federal laws, rules and regulations of the FDA and comparable medical device regulatory agencies outside of the United States to which they are subject (such institutional review boards, ethics review boards, committees, the FDA or any comparable regulatory agencies, collectively, the "Regulatory Authorities") and all other applicable Health Care Laws; the descriptions in the Registration Statement, the General Disclosure Package or the Prospectus of the results of such studies and trials are accurate and not misleading in all material respects with respect to the portions of such studies and trials being described and fairly present the data derived from such studies or trials; the Company has no knowledge of any other studies or trials not described in the Registration Statement, the General Disclosure Package and the Prospectus, the results of which are inconsistent with or reasonably call into question the results described or referred to in the Registration Statement, the General Disclosure Package and the Prospectus when viewed in the context in which such results are described and the current state of development; neither the Company nor its subsidiaries have received any written notice, correspondence or other communications from the Regulatory Authorities requiring or threatening (i) the termination or suspension or clinical hold of any studies or trials that are described in, or the results of which are referred to in, the Registration Statement, the General Disclosure Package and the Prospectus, or (ii) the material modification of any studies or trials that would cause them to differ from their descriptions in the Registration Statement, the General Disclosure Package and the Prospectus, other than ordinary course communications with respect to modifications in connection with the design and implementation of such studies or tests, and, to the Company's knowledge, there are no reasonable grounds for the same.

(xli) Health Care Products Manufacturing. The manufacture of the Company's and its subsidiaries' products by or on behalf of the Company and its subsidiaries is being conducted in compliance in all material respects with all applicable Health Care Laws, including, without limitation, the FDA's current good manufacturing practice regulations at 21 CFR Part 820, and, to the extent applicable, the respective counterparts thereof promulgated by governmental authorities in countries outside the United States. Neither the Company nor any of its subsidiaries has had any manufacturing site (whether Company-owned, subsidiary-owned or that of a third party manufacturer for the Company's or its subsidiaries' products) subject to a governmental authority (including FDA) shutdown or import or export prohibition, nor received any FDA or other governmental authority "warning letters," or "untitled letters" alleging or asserting material noncompliance with any applicable Health Care Laws, requests to make material changes to the Company's or its subsidiaries' products, processes or operations, or similar correspondence or notice from the FDA or other governmental authority alleging or asserting material noncompliance with any applicable Health Care Laws, other than those that have been satisfactorily addressed and/or closed with the FDA or other governmental authority. To the knowledge of the Company, neither the FDA nor any other governmental authority is considering such action.

(xlii) No Safety Notices. (i) There have been no recalls, field notifications, field corrections, market withdrawals or replacements, warnings, "dear doctor" letters, investigator notices, safety alerts or other notice of action relating to an alleged lack of safety, efficacy, or regulatory compliance of the Company's or its subsidiaries' products ("Safety Notices") and (ii) there are no facts that would be reasonably likely to result in (x) a Safety Notice with respect to the Company's or its subsidiaries' products, or (y) a material change in labeling of any of the Company's or its subsidiaries' products or (z) a termination or suspension of marketing or testing of any of the Company's or its subsidiaries' products.

(b) *Officer's Certificates*. Any certificate signed by any officer of the Company or any of its subsidiaries delivered to the Representatives or to counsel for the Underwriters shall be deemed a representation and warranty by the Company to each Underwriter as to the matters covered thereby.

SECTION 2. Sale and Delivery to Underwriters; Closing.

(a) *Initial Securities*. On the basis of the representations and warranties herein contained and subject to the terms and conditions herein set forth, the Company agrees to sell to each Underwriter, severally and not jointly, and each Underwriter, severally and not jointly, agrees to purchase from the Company, at the price per share set forth in Schedule A, that number of Initial Securities set forth in Schedule A opposite the name of such Underwriter, plus any additional number of Initial Securities which such Underwriter may become obligated to purchase pursuant to the provisions of Section 10 hereof, subject, in each case, to such adjustments among the Underwriters as the Representatives in their sole discretion shall make to eliminate any sales or purchases of fractional shares.

(b) *Option Securities*. In addition, on the basis of the representations and warranties herein contained and subject to the terms and conditions herein set forth, the Company hereby grants an option to the Underwriters, severally and not jointly, to purchase up to an additional [] shares of Common Stock, at the price per share set forth in Schedule A, less an amount per share equal to any dividends or distributions declared by the Company and payable on the Initial Securities but not payable on the Option Securities. The option hereby granted may be exercised for 30 days after the date hereof and may be exercised in whole or in part at any time from time to time upon notice by the Representatives to the Company setting forth the number of Option Securities as to which the several Underwriters are then exercising the option and the time and date of payment and delivery for such Option Securities. Any such time and date of delivery (a "Date of Delivery") shall be determined by the Representatives, but shall not be later than seven full business days after the exercise of said option, nor in any event prior to the Closing Time. If the option is exercised as to all or any portion of the Option Securities, each of the Underwriters, acting severally and not jointly, will purchase that proportion of the total number of Option Securities then being purchased which the number of Initial Securities set forth in Schedule A opposite the name of such Underwriter bears to the total number of Initial Securities, subject, in each case, to such adjustments as the Representatives in their sole discretion shall make to eliminate any sales or purchases of fractional shares.

(c) *Payment*. Payment of the purchase price for, and delivery of certificates or security entitlements for, the Initial Securities shall be made at the offices of Shearman & Sterling LLP, 599 Lexington Avenue, New York, New York 10022, or at such other place as shall be agreed upon by the Representatives and the Company, at 9:00 A.M. (New York City time) on the second (third, if the pricing occurs after 4:30 P.M. (New York City time) on any given day) business day after the date hereof (unless postponed in accordance with the provisions of Section 10), or such other time not later than ten business days after such date as shall be agreed upon by the Representatives and the Company (such time and date of payment and delivery being herein called "Closing Time").

In addition, in the event that any or all of the Option Securities are purchased by the Underwriters, payment of the purchase price for, and delivery of certificates or security entitlements for, such Option Securities shall be made at the above-mentioned offices, or at such other place as shall be agreed upon by the Representatives and the Company, on each Date of Delivery as specified in the notice from the Representatives to the Company.

Payment shall be made to the Company by wire transfer of immediately available funds to a bank account designated by the Company against delivery to the Representatives for the respective accounts of the Underwriters of certificates or security entitlements for the Securities to be purchased by them. It is understood that each Underwriter has authorized the Representatives, for its account, to accept delivery of, receipt for, and make payment of the purchase price for, the Initial Securities and the Option Securities, if any, which it has agreed to purchase. Each of the Representatives, individually and not as a representative of the Underwriters, may (but shall not be obligated to) make payment of the purchase price for the Initial Securities or the Option Securities, if any, to be purchased by any Underwriter whose funds have not been received by the Closing Time or the relevant Date of Delivery, as the case may be, but such payment shall not relieve such Underwriter from its obligations hereunder.

SECTION 3. Covenants of the Company. The Company covenants with each Underwriter as follows:

(a) *Compliance with Securities Regulations and Commission Requests*. The Company, subject to Section 3(b), will comply with the requirements of Rule 430A, and will notify the Representatives immediately, and confirm the notice in writing, (i) when any post-effective amendment to the Registration Statement shall become effective or any amendment or supplement to the Prospectus shall have been filed, (ii) of the receipt of any comments from the Commission, (iii) of any request by the Commission for any amendment to the Registration Statement or any amendment or supplement to the Prospectus or for additional information, (iv) of the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement or any post-effective amendment or of any order preventing or suspending the use of any preliminary prospectus or the Prospectus, or of the suspension of the qualification of the Securities for offering or sale in any jurisdiction, or of the initiation or threatening of any proceedings for any of such purposes or of any examination pursuant to Section 8(d) or 8(e) of the 1933 Act concerning the Registration Statement and (v) if the Company becomes the subject of a proceeding under Section 8A of the 1933 Act in connection with the offering of the Securities. The Company will effect all filings required under Rule 424(b), in the manner and within the time period required by Rule 424(b) (without reliance on Rule 424(b)(8)), and will take such steps as it deems necessary to ascertain promptly whether the form of prospectus transmitted for filing under Rule 424(b) was received for filing by the Commission and, in the event that it was not, it will promptly file such prospectus. The Company will make every reasonable effort to prevent the issuance of any stop order, prevention or suspension and, if any such order is issued, to obtain the lifting thereof at the earliest possible moment.

(b) *Continued Compliance with Securities Laws*. The Company will comply with the 1933 Act and the 1933 Act Regulations so as to permit the completion of the distribution of the Securities as contemplated in this Agreement and in the Registration Statement, the General Disclosure Package and the Prospectus. If at any time when a prospectus relating to the Securities is (or, but for the exception afforded by Rule 172 of the 1933 Act Regulations ("Rule 172"), would be) required by the 1933 Act to be delivered in connection with sales of the Securities, any event shall occur or condition shall exist as a result of which it is necessary, in the opinion of counsel for the Underwriters or for the Company, to (i) amend the Registration Statement in order that the Registration Statement will not include an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading, (ii) amend or supplement the General Disclosure Package or the Prospectus in order that the General Disclosure Package or the Prospectus, as the case may be, will not include any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein not misleading in the light of the circumstances existing at the time it is delivered to a purchaser or (iii) amend the Registration Statement or amend or supplement the General Disclosure Package or the Prospectus, as the case may be, in order to comply with the requirements of the 1933 Act or the 1933 Act Regulations, the Company will promptly (A) give the Representatives notice of such event, (B) prepare any amendment or supplement as may be necessary to correct such statement or omission or to make the Registration Statement, the General Disclosure Package or the Prospectus comply with such requirements and, a reasonable amount of time prior to any proposed filing or use, furnish the Representatives with copies of any such amendment or supplement and (C) file with the Commission any such amendment or supplement; provided that the Company shall not file or use any such amendment or supplement to which the Representatives or counsel for the Underwriters shall object. The Company will furnish to the Underwriters such number of copies of such amendment or supplement as the Underwriters may reasonably request. The Company has given the Representatives notice of its intention to make any filings pursuant to the 1934 Act or 1934 Act Regulations within 48 hours or as soon as reasonably practicable prior to the Applicable Time; the Company will give the Representatives notice of its intention to make any such filing from the Applicable Time to the Closing Time and will furnish the Representatives with copies of any such documents a reasonable amount of time prior to such proposed filing, as the case may be, and will not file or use any such document to which the Representatives or counsel for the Underwriters shall reasonably object.

(c) *Delivery of Registration Statements*. The Company has furnished or will deliver to the Representatives and counsel for the Underwriters, without charge, conformed copies of the Registration Statement as originally filed and each amendment thereto (including exhibits filed therewith) and conformed copies of all consents and certificates of experts. The copies of the Registration Statement and each amendment thereto furnished to the Underwriters will be identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T.

(d) *Delivery of Prospectuses*. The Company has delivered to each Underwriter, without charge, as many copies of each preliminary prospectus as such Underwriter reasonably requested, and the Company hereby consents to the use of such copies for purposes permitted by the 1933 Act. The Company will furnish to each Underwriter, without charge, during the period when a prospectus relating to the Securities is (or, but for the exception afforded by Rule 172, would be) required to be delivered under the 1933 Act, such number of copies of the Prospectus (as amended or supplemented) as such Underwriter may reasonably request. The Prospectus and any amendments or supplements thereto furnished to the Underwriters will be identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T.

(e) *Blue Sky Qualifications*. The Company will use its reasonable best efforts, in cooperation with the Underwriters, to qualify the Securities for offering and sale under the applicable securities laws of such states and other jurisdictions (domestic or foreign) as the Representatives may reasonably designate and to maintain such qualifications in effect so long as required to complete the distribution of the Securities; provided, however, that the Company shall not be obligated to file any general consent to service of process or to qualify as a foreign corporation or as a dealer in securities in any jurisdiction in which it is not so qualified or to subject itself to taxation in respect of doing business in any jurisdiction in which it is not otherwise so subject.

(f) *Rule 158*. The Company will timely file such reports pursuant to the 1934 Act as are necessary in order to make generally available to its securityholders as soon as practicable an earnings statement for the purposes of, and to provide to the Underwriters the benefits contemplated by, the last paragraph of Section 11(a) of the 1933 Act.

(g) *Use of Proceeds*. The Company will use the net proceeds received by it from the sale of the Securities in the manner specified in the Registration Statement, the General Disclosure Package and the Prospectus under "Use of Proceeds."

(h) *Listing*. The Company will use its reasonable best efforts to effect and maintain the listing of the Common Stock (including the Securities) on the Nasdaq Global Market.

(i) *Restriction on Sale of Securities*. During a period of 180 days from the date of the Prospectus, the Company will not, without the prior written consent of the Representatives, (i) directly or indirectly, offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase or otherwise transfer or dispose of any shares of Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock or file or confidentially submit any registration statement under the 1933 Act with respect to any of the foregoing, (ii) enter into any swap or any other agreement or any transaction that transfers, in whole or in part, directly or indirectly, the economic consequence of ownership of the Common Stock, whether any such swap or transaction described in clause (i) or (ii) above is to be settled by delivery of Common Stock or other securities, in cash or otherwise or (iii) publicly disclose the intention to do any of the foregoing described in clauses (i) and (ii). The foregoing sentence shall not apply to (A) the Securities to be sold hereunder, (B) any shares of Common Stock issued by the Company upon the exercise of an option or warrant or the conversion of a security outstanding on the date hereof and referred to in the Registration Statement, the General Disclosure Package and the Prospectus, (C) any shares of Common Stock issued or options to purchase Common Stock granted pursuant to existing employee benefit plans of the Company referred to in the Registration Statement, the General Disclosure Package and the Prospectus, (D) any shares of Common Stock issued pursuant to any non-employee director stock plan or dividend reinvestment plan referred to in the Registration Statement, the General Disclosure Package and the Prospectus, (E) the filing by the Company of a registration statement on Form S-8 or any successor form thereto with respect to the registration of securities to be offered under any employee benefit or equity incentive plans of the Company referred to in the Registration Statement, the General Disclosure Package and the Prospectus and (F) the sale or issuance of or entry into an agreement to sell or issue shares of Common Stock or other securities issued in connection with any (1) merger, (2) acquisition of securities, businesses, properties or other assets, (3) joint venture or (4) strategic alliance or relationship; provided, that the aggregate number of shares of Common Stock or other securities issued pursuant to this clause (F) shall not exceed 5.0% of the total number of issued and outstanding shares of Common Stock immediately following the issuance and sale of the Securities at the Closing Time pursuant hereto; provided further that each recipient of any such shares of Common Stock or securities issued pursuant to clause (F) during the 180-day restricted period shall enter into an agreement substantially in the form of Exhibit A hereto with respect to (and not in excess of) the 180-day restricted period and only if such recipient did not previously enter into such an agreement with the Representatives.

(j) If the Representatives, in their sole discretion, agree to release or waive the restrictions set forth in a lock-up agreement described in Section 5(i) hereof for an officer or director of the Company and provides the Company with notice of the impending release or waiver at least three business days before the effective date of the release or waiver, the Company agrees to announce the impending release or waiver by a press release substantially in the form of Exhibit B hereto through a major news service at least two business days before the effective date of the release or waiver.

(k) *Reporting Requirements*. The Company, during the period when a Prospectus relating to the Securities is (or, but for the exception afforded by Rule 172, would be) required to be delivered under the 1933 Act, will file all documents required to be filed with the Commission pursuant to the 1934 Act within the time periods required by the 1934 Act and 1934 Act Regulations. Additionally, the Company shall report the use of proceeds from the issuance of the Shares as may be required under Rule 463 under the 1933 Act.

(l) *Issuer Free Writing Prospectuses*. The Company agrees that, unless it obtains the prior written consent of the Representatives, it will not make any offer relating to the Securities that would constitute an Issuer Free Writing Prospectus or that would otherwise constitute a "free writing prospectus," or a portion thereof, required to be filed by the Company with the Commission or retained by the Company under Rule 433; provided that the Representatives will be deemed to have consented to the Issuer Free Writing Prospectuses listed on Schedule B-2 hereto and any "road show that is a written communication" within the meaning of Rule 433(d)(8)(i) that has been reviewed by the Representatives. The Company represents that it has treated or agrees that it will treat each such free writing prospectus consented to, or deemed consented to, by the Representatives as an "issuer free writing prospectus," as defined in Rule 433, and that it has complied and will comply with the applicable requirements of Rule 433 with respect thereto, including timely filing with the Commission where required, legending and record keeping. If at any time following issuance of an Issuer Free Writing Prospectus there occurred or occurs an event or development as a result of which such Issuer Free Writing Prospectus conflicted or would conflict with the information contained in the Registration Statement, any preliminary prospectus or the Prospectus or included or would include an untrue statement of a material fact or omitted or would omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances existing at that subsequent time, not misleading, the Company will promptly notify the Representatives and will promptly amend or supplement, at its own expense, such Issuer Free Writing Prospectus to eliminate or correct such conflict, untrue statement or omission.

(m) *Certification Regarding Beneficial Owners*. The Company will deliver to the Representatives, on the date of execution of this Agreement, a properly completed and executed Certification Regarding Beneficial Owners of Legal Entity Customers, together with copies of identifying documentation, and the Company undertakes to provide such additional supporting documentation as the Representatives may reasonably request in connection with the verification of the foregoing certification.

(n) *Testing-the-Waters Materials*. If at any time following the distribution of any Written Testing-the-Waters Communication there occurred or occurs an event or development as a result of which such Written Testing-the-Waters Communication included or would include an untrue statement of a material fact or omitted or would omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances existing at that subsequent time, not misleading, the Company will promptly notify the Representatives and will promptly amend or supplement, at its own expense, such Written Testing-the-Waters Communication to eliminate or correct such untrue statement or omission.

(o) *Emerging Growth Company Status*. The Company will promptly notify the Representatives if the Company ceases to be an Emerging Growth Company at any time prior to the later of (i) completion of the distribution of the Securities within the meaning of the Securities Act and (ii) completion of the 180-day restricted period referred to in Section 3(i).

SECTION 4. Payment of Expenses.

(a) *Expenses*. The Company will pay or cause to be paid all expenses incident to the performance of its obligations under this Agreement, including (i) the preparation, printing and filing of the Registration Statement (including financial statements and exhibits) as originally filed and each amendment thereto, (ii) the preparation, printing and delivery to the Underwriters of copies of each preliminary prospectus, each Issuer Free Writing Prospectus and the Prospectus and any amendments or supplements thereto and any costs associated with electronic delivery of any of the foregoing by the Underwriters to investors, (iii) the preparation, issuance and delivery of the certificates or security entitlements for the Securities to the Underwriters, including any stock or other transfer taxes and any stamp or other duties payable upon the sale, issuance or delivery of the Securities to the Underwriters, (iv) the fees and disbursements of the Company's counsel, accountants and other advisors, (v) the qualification of the Securities under securities laws in accordance with the provisions of Section 3(e) hereof, including filing fees and the reasonable fees and disbursements of counsel for the Underwriters in connection therewith and in connection with the preparation of the Blue Sky Survey and any supplement thereto, (vi) the fees and expenses of any transfer agent or registrar for the Securities, (vii) the costs and expenses of the Company relating to investor presentations on any "road show" undertaken in connection with the marketing of the Securities, including without limitation, expenses associated with the production of road show slides and graphics, fees and expenses of any consultants engaged in connection with the road show presentations, travel and lodging expenses of the representatives and officers of the Company and any such consultants (provided that the travel, lodging and any car travel expenses of representatives of the Underwriters shall be paid for by the Underwriters), and 50% of the cost of aircraft and other transportation chartered in connection with the road show, (viii) the filing fees incident to, and the reasonable fees and disbursements of counsel to the Underwriters in connection with, the review by FINRA of the terms of the sale of the Securities, (ix) the fees and expenses incurred in connection with the listing of the Securities on the Nasdaq Global Market, and (x) the costs and expenses (including, without limitation, any damages or other amounts payable in connection with legal or contractual liability) associated with the reforming of any contracts for sale of the Securities made by the Underwriters caused by a breach of the representation contained in the third sentence of Section 1(a)(ii); provided, however, that the amount payable by the Company for the reimbursement of fees and disbursements of counsel to the Underwriters pursuant to clauses (v) and (viii) shall not exceed $45,000 in the aggregate**.**

(b) *Termination of Agreement*. If this Agreement is terminated by the Representatives in accordance with the provisions of Section 5, Section 9(a)(i) or (iii) or Section 10 hereof, the Company shall reimburse the Underwriters for all of their out-of-pocket expenses, including the reasonable fees and disbursements of counsel for the Underwriters; provided, however, that if this Agreement is terminated pursuant to Section 10, the Company shall only be required to reimburse the reasonable and documented out of pocket expenses (including the reasonable and documented fees and disbursements of counsel for the Underwriters) of the Underwriters that have not failed to purchase the Securities that they have agreed to purchase hereunder.

SECTION 5. Conditions of Underwriters' Obligations. The obligations of the several Underwriters hereunder are subject to the accuracy of the representations and warranties of the Company contained herein or in certificates of any officer of the Company or any of its subsidiaries delivered pursuant to the provisions hereof, to the performance by the Company of its covenants and other obligations hereunder, and to the following further conditions:

(a) *Effectiveness of Registration Statement; Rule 430A Information*. The Registration Statement, including any Rule 462(b) Registration Statement, has become effective and, at the Closing Time, no stop order suspending the effectiveness of the Registration Statement or any post-effective amendment thereto has been issued under the 1933 Act, no order preventing or suspending the use of any preliminary prospectus or the Prospectus has been issued and no proceedings for any of those purposes have been instituted or are pending or, to the Company's knowledge, contemplated; and the Company has complied with each request (if any) from the Commission for additional information. A prospectus containing the Rule 430A Information shall have been filed with the Commission in the manner and within the time frame required by Rule 424(b) without reliance on Rule 424(b)(8) or a post-effective amendment providing such information shall have been filed with, and declared effective by, the Commission in accordance with the requirements of Rule 430A.

(b) *Opinion of Counsel for Company*. At the Closing Time, the Representatives shall have received:

(i) the favorable opinion and negative assurance letter, dated the Closing Time, of Cooley LLP, counsel for the Company, in form and substance reasonably satisfactory to counsel for the Underwriters; and

(ii) the favorable opinions, dated the Closing Time, each of Wilson Sonsini Goodrich & Rosati and Foley Hoag LLP, intellectual property counsel for the Company, in form and substance satisfactory to counsel for the Underwriters.

(c) *Opinion of Counsel for Underwriters*. At the Closing Time, the Representatives shall have received the favorable opinion and negative assurance letter, dated the Closing Time, of Shearman & Sterling LLP, counsel for the Underwriters, together with signed or reproduced copies of such letter for each of the other Underwriters, in form and substance satisfactory to the Underwriters.

(d) *Officers' Certificate*. At the Closing Time, there shall not have been, since the date hereof or since the respective dates as of which information is given in the Registration Statement, the General Disclosure Package or the Prospectus, any material adverse change in the condition, financial or otherwise, or in the earnings, business affairs or business prospects of the Company and its subsidiaries considered as one enterprise, whether or not arising in the ordinary course of business, and the Representatives shall have received a certificate of the Chief Executive Officer of the Company and of the chief financial or chief accounting officer of the Company, dated the Closing Time, to the effect that (i) there has been no such material adverse change, (ii) the representations and warranties of the Company in this Agreement are true and correct with the same force and effect as though expressly made at and as of the Closing Time, (iii) the Company has complied with all agreements and satisfied all conditions on its part to be performed or satisfied at or prior to the Closing Time, and (iv) no stop order suspending the effectiveness of the Registration Statement under the 1933 Act has been issued, no order preventing or suspending the use of any preliminary prospectus or the Prospectus has been issued and no proceedings for any of those purposes have been instituted or are pending or, to their knowledge, contemplated.

(e) *Accountant's Comfort Letter*. At the time of the execution of this Agreement, the Representatives shall have received from BDO USA, LLP a letter, dated such date, in form and substance satisfactory to the Representatives, together with signed or reproduced copies of such letter for each of the other Underwriters containing statements and information of the type ordinarily included in accountants' "comfort letters" to underwriters with respect to the financial statements and certain financial information contained in the Registration Statement, the General Disclosure Package and the Prospectus.

(f) *Bring-down Comfort Letter*. At the Closing Time, the Representatives shall have received from BDO USA, LLP a letter, dated as of the Closing Time, to the effect that they reaffirm the statements made in the letter furnished pursuant to subsection (e) of this Section, except that the specified date referred to shall be a date not more than three business days prior to the Closing Time.

(g) *Approval of Listing*. At the Closing Time, the Securities shall have been approved for listing on the Nasdaq Global Market, subject only to official notice of issuance.

(h) *No Objection*. FINRA has confirmed that it has not raised any objection with respect to the fairness and reasonableness of the underwriting terms and arrangements relating to the offering of the Securities.

(i) *Lock-up Agreements*. At the date of this Agreement, the Representatives shall have received an agreement substantially in the form of Exhibit A hereto signed by the persons listed on Schedule C hereto.

(j) *Chief Financial Officer's Certificate*. On the date of this Agreement and at Closing Time, the Representatives shall have received from the Company a certificate of its chief financial officer, which certificate shall be substantially in the form attached hereto as Exhibit C.

(k) *Maintenance of Rating*. Neither the Company nor its subsidiaries have any debt securities or preferred stock that are rated by any "nationally recognized statistical rating agency" (as defined in Section 3(a)(62) of the 1934 Act).

(l) *Conditions to Purchase of Option Securities*. In the event that the Underwriters exercise their option provided in Section 2(b) hereof to purchase all or any portion of the Option Securities, the representations and warranties of the Company contained herein and the statements in any certificates furnished by the Company and any of its subsidiaries hereunder shall be true and correct as of each Date of Delivery and, at the relevant Date of Delivery, the Representatives shall have received:

(i) Officers' Certificate. A certificate, dated such Date of Delivery, of the President or a Vice President of the Company and of the chief financial or chief accounting officer of the Company confirming that the certificate delivered at the Closing Time pursuant to Section 5(d) hereof remains true and correct as of such Date of Delivery.

(ii) Opinion of Counsel for Company. If requested by the Representatives, the favorable opinion and negative assurance letter of Cooley LLP, counsel for the Company, together with the favorable opinions each of Wilson Sonsini Goodrich & Rosati and Foley Hoag LLP, intellectual property counsel for the Company, in form and substance satisfactory to counsel for the Underwriters, dated such Date of Delivery, relating to the Option Securities to be purchased on such Date of Delivery and otherwise to the same effect as the opinion required by Section 5(b) hereof.

(iii) Opinion of Counsel for Underwriters. If requested by the Representative, the favorable opinion of Shearman & Sterling LLP, counsel for the Underwriters, dated such Date of Delivery, relating to the Option Securities to be purchased on such Date of Delivery and otherwise to the same effect as the opinion required by Section 5(c) hereof.

(iv) Bring-down Comfort Letter. If requested by the Representative, a letter from BDO USA, LLP, in form and substance satisfactory to the Representatives and dated such Date of Delivery, substantially in the same form and substance as the letter furnished to the Representatives pursuant to Section 5(e) hereof, except that the "specified date" in the letter furnished pursuant to this paragraph shall be a date not more than three business days prior to such Date of Delivery.

(v) Chief Financial Officer's Certificate. A certificate, dated such Date of Delivery, of the chief financial or chief accounting officer of the Company confirming that the certificate delivered at the Closing Time pursuant to Section 5(j) hereof remains true and correct as of such Date of Delivery.

(m) *Additional Documents*. At the Closing Time and at each Date of Delivery (if any) counsel for the Underwriters shall have been furnished with such customary documents and opinions as they may reasonably require for the purpose of enabling them to pass upon the issuance and sale of the Securities as herein contemplated, or in order to evidence the accuracy of any of the representations or warranties, or the fulfillment of any of the conditions, herein contained; and all proceedings taken by the Company in connection with the issuance and sale of the Securities as herein contemplated shall be reasonably satisfactory in form and substance to the Representatives and counsel for the Underwriters.

(n) *Termination of Agreement*. If any condition specified in this Section shall not have been fulfilled when and as required to be fulfilled, this Agreement, or, in the case of any condition to the purchase of Option Securities on a Date of Delivery which is after the Closing Time, the obligations of the several Underwriters to purchase the relevant Option Securities, may be terminated by the Representatives by notice to the Company at any time at or prior to Closing Time or such Date of Delivery, as the case may be, and such termination shall be without liability of any party to any other party except as provided in Section 4 and except that Sections 1, 6, 7, 8, 14, 15, 16 and 17 shall survive any such termination and remain in full force and effect.

SECTION 6. Indemnification.

(a) *Indemnification of Underwriters*. The Company agrees to indemnify and hold harmless each Underwriter, its affiliates (as such term is defined in Rule 501(b) under the 1933 Act (each, an "Affiliate")), its selling agents and each person, if any, who controls any Underwriter within the meaning of Section 15 of the 1933 Act or Section 20 of the 1934 Act as follows:

(i) against any and all loss, liability, claim, damage and expense whatsoever, as incurred, arising out of any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement (or any amendment thereto), including the Rule 430A Information, or the omission or alleged omission therefrom of a material fact required to be stated therein or necessary to make the statements therein not misleading or arising out of any untrue statement or alleged untrue statement of a material fact included (A) in any preliminary prospectus, any Issuer Free Writing Prospectus, any Written Testing-the-Waters Communication, the General Disclosure Package or the Prospectus (or any amendment or supplement thereto), or (B) in any materials or information provided to investors by, or with the prior approval of, the Company in connection with the marketing of the offering of the Securities ("Marketing Materials"), including any roadshow or investor presentations made to investors by the Company (whether in person or electronically), or the omission or alleged omission in any preliminary prospectus, Issuer Free Writing Prospectus, any Written Testing-the-Waters Communication, Prospectus or in any Marketing Materials of a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading;

(ii) against any and all loss, liability, claim, damage and expense whatsoever, as incurred, to the extent of the aggregate amount paid in settlement of any litigation, or any investigation or proceeding by any governmental agency or body, commenced or threatened, or of any claim whatsoever based upon any such untrue statement or omission, or any such alleged untrue statement or omission; provided that (subject to Section 6(d) below) any such settlement is effected with the written consent of the Company;

(iii) against any and all expense whatsoever, as incurred (including the fees and disbursements of counsel chosen by the Representatives), reasonably incurred in investigating, preparing or defending against any litigation, or any investigation or proceeding by any governmental agency or body, commenced or threatened, or any claim whatsoever based upon any such untrue statement or omission, or any such alleged untrue statement or omission, to the extent that any such expense is not paid under (i) or (ii) above;

provided, however, that this indemnity agreement shall not apply to any loss, liability, claim, damage or expense to the extent arising out of any untrue statement or omission or alleged untrue statement or omission made in the Registration Statement (or any amendment thereto), including the Rule 430A Information, the General Disclosure Package, any preliminary prospectus, any Issuer Free Writing Prospectus, any Written Testing the Waters Communication, any Marketing Materials or the Prospectus (or any amendment or supplement thereto) in reliance upon and in conformity with the Underwriter Information.

(b) *Indemnification of Company, Directors and Officers*. Each Underwriter, severally and not jointly, agrees to indemnify and hold harmless the Company, its directors, each of its officers who signed the Registration Statement, and each person, if any, who controls the Company within the meaning of Section 15 of the 1933 Act or Section 20 of the 1934 Act, against any and all loss, liability, claim, damage and expense described in the indemnity contained in subsection (a) of this Section, as incurred, but only with respect to untrue statements or omissions, or alleged untrue statements or omissions, made in the Registration Statement (or any amendment thereto), including the Rule 430A Information, the General Disclosure Package or the Prospectus (or any amendment or supplement thereto) in reliance upon and in conformity with the Underwriter Information.

(c) *Actions against Parties; Notification*. Each indemnified party shall give notice as promptly as reasonably practicable to each indemnifying party of any action commenced against it in respect of which indemnity may be sought hereunder, but failure to so notify an indemnifying party shall not relieve such indemnifying party from any liability hereunder to the extent it is not materially prejudiced as a result thereof and in any event shall not relieve it from any liability which it may have otherwise than on account of this indemnity agreement. In the case of parties indemnified pursuant to Section 6(a) above, counsel to the indemnified parties shall be selected by the Representatives, and, in the case of parties indemnified pursuant to Section 6(b) above, counsel to the indemnified parties shall be selected by the Company. An indemnifying party may participate at its own expense in the defense of any such action; provided, however, that counsel to the indemnifying party shall not (except with the consent of the indemnified party) also be counsel to the indemnified party. In no event shall the indemnifying parties be liable for fees and expenses of more than one counsel (in addition to any local counsel) separate from their own counsel for all indemnified parties in connection with any one action or separate but similar or related actions in the same jurisdiction arising out of the same general allegations or circumstances. No indemnifying party shall, without the prior written consent of the indemnified parties, settle or compromise or consent to the entry of any judgment with respect to any litigation, or any investigation or proceeding by any governmental agency or body, commenced or threatened, or any claim whatsoever in respect of which indemnification or contribution could be sought under this Section 6 or Section 7 hereof (whether or not the indemnified parties are actual or potential parties thereto), unless such settlement, compromise or consent (i) includes an unconditional release of each indemnified party from all liability arising out of such litigation, investigation, proceeding or claim and (ii) does not include a statement as to or an admission of fault, culpability or a failure to act by or on behalf of any indemnified party.

(d) *Settlement without Consent if Failure to Reimburse*. If at any time an indemnified party shall have requested an indemnifying party to reimburse the indemnified party for fees and expenses of counsel, such indemnifying party agrees that it shall be liable for any settlement of the nature contemplated by Section 6(a)(ii) effected without its written consent if (i) such settlement is entered into more than 45 days after receipt by such indemnifying party of the aforesaid request, (ii) such indemnifying party shall have received notice of the terms of such settlement at least 30 days prior to such settlement being entered into and (iii) such indemnifying party shall not have reimbursed such indemnified party in accordance with such request prior to the date of such settlement.

SECTION 7. Contribution. If the indemnification provided for in Section 6 hereof is for any reason unavailable to or insufficient to hold harmless an indemnified party in respect of any losses, liabilities, claims, damages or expenses referred to therein, then each indemnifying party shall contribute to the aggregate amount of such losses, liabilities, claims, damages and expenses incurred by such indemnified party, as incurred, (i) in such proportion as is appropriate to reflect the relative benefits received by the Company, on the one hand, and the Underwriters, on the other hand, from the offering of the Securities pursuant to this Agreement or (ii) if the allocation provided by clause (i) is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) above but also the relative fault of the Company, on the one hand, and of the Underwriters, on the other hand, in connection with the statements or omissions which resulted in such losses, liabilities, claims, damages or expenses, as well as any other relevant equitable considerations.

The relative benefits received by the Company, on the one hand, and the Underwriters, on the other hand, in connection with the offering of the Securities pursuant to this Agreement shall be deemed to be in the same respective proportions as the total net proceeds from the offering of the Securities pursuant to this Agreement (before deducting expenses) received by the Company, on the one hand, and the total underwriting discount received by the Underwriters, on the other hand, in each case as set forth on the cover of the Prospectus, bear to the aggregate initial public offering price of the Securities as set forth on the cover of the Prospectus.

The relative fault of the Company, on the one hand, and the Underwriters, on the other hand, shall be determined by reference to, among other things, whether any such untrue or alleged untrue statement of a material fact or omission or alleged omission to state a material fact relates to information supplied by the Company or by the Underwriters and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission.

The Company and the Underwriters agree that it would not be just and equitable if contribution pursuant to this Section 7 were determined by pro rata allocation (even if the Underwriters were treated as one entity for such purpose) or by any other method of allocation which does not take account of the equitable considerations referred to above in this Section 7. The aggregate amount of losses, liabilities, claims, damages and expenses incurred by an indemnified party and referred to above in this Section 7 shall be deemed to include any documented legal or other expenses reasonably incurred by such indemnified party in investigating, preparing or defending against any litigation, or any investigation or proceeding by any governmental agency or body, commenced or threatened, or any claim whatsoever based upon any such untrue or alleged untrue statement or omission or alleged omission.

Notwithstanding the provisions of this Section 7, no Underwriter shall be required to contribute any amount in excess of the underwriting commissions received by such Underwriter in connection with the Securities underwritten by it and distributed to the public.

No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the 1933 Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation.

For purposes of this Section 7, each person, if any, who controls an Underwriter within the meaning of Section 15 of the 1933 Act or Section 20 of the 1934 Act and each Underwriter's Affiliates and selling agents shall have the same rights to contribution as such Underwriter, and each director of the Company, each officer of the Company who signed the Registration Statement, and each person, if any, who controls the Company within the meaning of Section 15 of the 1933 Act or Section 20 of the 1934 Act shall have the same rights to contribution as the Company. The Underwriters' respective obligations to contribute pursuant to this Section 7 are several in proportion to the number of Initial Securities set forth opposite their respective names in Schedule A hereto and not joint.

SECTION 8. Representations, Warranties and Agreements to Survive. All representations, warranties and agreements contained in this Agreement or in certificates of officers of the Company or any of its subsidiaries submitted pursuant hereto, shall remain operative and in full force and effect regardless of (i) any investigation made by or on behalf of any Underwriter or its Affiliates or selling agents, any person controlling any Underwriter, its officers or directors or any person controlling the Company and (ii) delivery of and payment for the Securities.

SECTION 9. Termination of Agreement.

(a) *Termination*. The Representatives may terminate this Agreement, by notice to the Company, at any time at or prior to the Closing Time (i) if there has been, in the judgment of the Representatives, since the time of execution of this Agreement or since the respective dates as of which information is given in the Registration Statement, the General Disclosure Package or the Prospectus, any material adverse change in the condition, financial or otherwise, or in the earnings, business affairs or business prospects of the Company and its subsidiaries considered as one enterprise, whether or not arising in the ordinary course of business, or (ii) if there has occurred any material adverse change in the financial markets in the United States or the international financial markets, any outbreak of hostilities or escalation thereof or other calamity or crisis or any change or development involving a prospective change in national or international political, financial or economic conditions, in each case the effect of which is such as to make it, in the judgment of the Representatives, impracticable or inadvisable to proceed with the completion of the offering or to enforce contracts for the sale of the Securities, or (iii) if trading in any securities of the Company has been suspended or materially limited by the Commission or the Nasdaq Global Market, or (iv) if trading generally on the NYSE MKT or the New York Stock Exchange or in the Nasdaq Global Market has been suspended or materially limited, or minimum or maximum prices for trading have been fixed, or maximum ranges for prices have been required, by any of said exchanges or by order of the Commission, FINRA or any other governmental authority, or (v) a material disruption has occurred in commercial banking or securities settlement or clearance services in the United States or with respect to Clearstream or Euroclear systems in Europe, or (vi) if a banking moratorium has been declared by either Federal or New York authorities.

(b) *Liabilities*. If this Agreement is terminated pursuant to this Section, such termination shall be without liability of any party to any other party except as provided in Section 4 hereof, and provided further that Sections 1, 6, 7, 8, 14, 15, 16 and 17 shall survive such termination and remain in full force and effect.

SECTION 10. Default by One or More of the Underwriters. If one or more of the Underwriters shall fail at the Closing Time or a Date of Delivery to purchase the Securities which it or they are obligated to purchase under this Agreement (the "Defaulted Securities"), the Representatives shall have the right, within 24 hours thereafter, to make arrangements for one or more of the non-defaulting Underwriters, or any other underwriters, to purchase all, but not less than all, of the Defaulted Securities in such amounts as may be agreed upon and upon the terms herein set forth; if, however, the Representatives shall not have completed such arrangements within such 24-hour period, then:

(i) if the number of Defaulted Securities does not exceed 10% of the number of Securities to be purchased on such date, each of the non-defaulting Underwriters shall be obligated, severally and not jointly, to purchase the full amount thereof in the proportions that their respective underwriting obligations hereunder bear to the underwriting obligations of all non-defaulting Underwriters, or

(ii) if the number of Defaulted Securities exceeds 10% of the number of Securities to be purchased on such date, this Agreement or, with respect to any Date of Delivery which occurs after the Closing Time, the obligation of the Underwriters to purchase, and the Company to sell, the Option Securities to be purchased and sold on such Date of Delivery shall terminate without liability on the part of any non-defaulting Underwriter.

No action taken pursuant to this Section shall relieve any defaulting Underwriter from liability in respect of its default.

In the event of any such default which does not result in a termination of this Agreement or, in the case of a Date of Delivery which is after the Closing Time, which does not result in a termination of the obligation of the Underwriters to purchase and the Company to sell the relevant Option Securities, as the case may be, either the (i) Representatives or (ii) the Company shall have the right to postpone Closing Time or the relevant Date of Delivery, as the case may be, for a period not exceeding seven days in order to effect any required changes in the Registration Statement, the General Disclosure Package or the Prospectus or in any other documents or arrangements. As used herein, the term "Underwriter" includes any person substituted for an Underwriter under this Section 10.

SECTION 11. Notices. All notices and other communications hereunder shall be in writing and shall be deemed to have been duly given if mailed or transmitted by any standard form of telecommunication. Notices to the Underwriters shall be directed to BofA at One Bryant Park, New York, New York 10036, attention of Syndicate Department (facsimile: (646) 855-3073), with a copy to ECM Legal (facsimile: (212) 230-8730), to Morgan Stanley at 1585 Broadway, New York, New York 10036, Attention: Equity Syndicate Desk, with a copy to the Legal Department and to Shearman & Sterling LLP, 599 Lexington Avenue, New York, New York 10022, attention of Ilir Mujalovic; notices to the Company shall be directed to it at 700 Chesapeake Drive, Redwood City, California 94063, attention of Glendon E. French; with a copy to Cooley LLP at 3175 Hanover Street, Palo Alto, California 94304, attention of Mark Weeks and Seth Gottlieb.

SECTION 12. No Advisory or Fiduciary Relationship. The Company acknowledges and agrees that (a) the purchase and sale of the Securities pursuant to this Agreement, including the determination of the initial public offering price of the Securities and any related discounts and commissions, is an arm's-length commercial transaction between the Company, on the one hand, and the several Underwriters, on the other hand, and does not constitute a recommendation, investment advice, or solicitation of any action by the Underwriters, (b) in connection with the offering of the Securities and the process leading thereto, each Underwriter is and has been acting solely as a principal and is not the agent or fiduciary of the Company, any of its subsidiaries or their respective stockholders, creditors, employees or any other party, (c) no Underwriter has assumed or will assume an advisory or fiduciary responsibility in favor of the Company with respect to the offering of the Securities or the process leading thereto (irrespective of whether such Underwriter has advised or is currently advising the Company or any of its subsidiaries on other matters) and no Underwriter has any obligation to the Company with respect to the offering of the Securities except the obligations expressly set forth in this Agreement, (d) the Underwriters and their respective affiliates may be engaged in a broad range of transactions that involve interests that differ from those of the Company and (e) the Underwriters have not provided any legal, accounting, regulatory, investment or tax advice with respect to the offering of the Securities and the Company has consulted its own respective legal, accounting, financial, regulatory and tax advisors to the extent it deemed appropriate, and (f) none of the activities of the Underwriters in connection with the transactions contemplated herein constitutes a recommendation, investment advice or solicitation of any action by the Underwriters with respect to any entity or natural person.

SECTION 13. Recognition of the U.S. Special Resolution Regimes.

(a) In the event that any Underwriter that is a Covered Entity becomes subject to a proceeding under a U.S. Special Resolution Regime, the transfer from such Underwriter of this Agreement, and any interest and obligation in or under this Agreement, will be effective to the same extent as the transfer would be effective under the U.S. Special Resolution Regime if this Agreement, and any such interest and obligation, were governed by the laws of the United States or a state of the United States.

(b) In the event that any Underwriter that is a Covered Entity or a BHC Act Affiliate of such Underwriter becomes subject to a proceeding under a U.S. Special Resolution Regime, Default Rights under this Agreement that may be exercised against such Underwriter are permitted to be exercised to no greater extent than such Default Rights could be exercised under the U.S. Special Resolution Regime if this Agreement were governed by the laws of the United States or a state of the United States.

For purposes of this Section 13, a "BHC Act Affiliate" has the meaning assigned to the term "affiliate" in, and shall be interpreted in accordance with, 12 U.S.C. § 1841(k). "Covered Entity" means any of the following: (i) a "covered entity" as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 252.82(b); (ii) a "covered bank" as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 47.3(b); or (iii) a "covered FSI" as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 382.2(b). "Default Right" has the meaning assigned to that term in, and shall be interpreted in accordance with, 12 C.F.R. §§ 252.81, 47.2 or 382.1, as applicable. "U.S. Special Resolution Regime" means each of (i) the Federal Deposit Insurance Act and the regulations promulgated thereunder and (ii) Title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act and the regulations promulgated thereunder.

SECTION 14. Parties. This Agreement shall each inure to the benefit of and be binding upon the Underwriters and the Company and their respective successors. Nothing expressed or mentioned in this Agreement is intended or shall be construed to give any person, firm or corporation, other than the Underwriters and the Company and their respective successors and the controlling persons and officers and directors referred to in Sections 6 and 7 and their heirs and legal representatives, any legal or equitable right, remedy or claim under or in respect of this Agreement or any provision herein contained. This Agreement and all conditions and provisions hereof are intended to be for the sole and exclusive benefit of the Underwriters and the Company and their respective successors, and said controlling persons and officers and directors and their heirs and legal representatives, and for the benefit of no other person, firm or corporation. No purchaser of Securities from any Underwriter shall be deemed to be a successor by reason merely of such purchase.

SECTION 15. Trial by Jury. The Company (on its behalf and, to the extent permitted by applicable law, on behalf of its stockholders and affiliates) and each of the Underwriters hereby irrevocably waives, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to this Agreement or the transactions contemplated hereby.

SECTION 16. GOVERNING LAW. THIS AGREEMENT AND ANY CLAIM, CONTROVERSY OR DISPUTE ARISING UNDER OR RELATED TO THIS AGREEMENT SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF, THE STATE OF NEW YORK WITHOUT REGARD TO ITS CHOICE OF LAW PROVISIONS.

SECTION 17. Consent to Jurisdiction; Waiver of Immunity. Any legal suit, action or proceeding arising out of or based upon this Agreement or the transactions contemplated hereby ("Related Proceedings") shall be instituted in (i) the federal courts of the United States of America located in the City and County of New York, Borough of Manhattan or (ii) the courts of the State of New York located in the City and County of New York, Borough of Manhattan (collectively, the "Specified Courts"), and each party irrevocably submits to the exclusive jurisdiction (except for proceedings instituted in regard to the enforcement of a judgment of any such court (a "Related Judgment"), as to which such jurisdiction is non-exclusive) of such courts in any such suit, action or proceeding. Service of any process, summons, notice or document by mail to such party's address set forth above shall be effective service of process for any suit, action or other proceeding brought in any such court. The parties irrevocably and unconditionally waive any objection to the laying of venue of any suit, action or other proceeding in the Specified Courts and irrevocably and unconditionally waive and agree not to plead or claim in any such court that any such suit, action or other proceeding brought in any such court has been brought in an inconvenient forum.

SECTION 18. TIME. TIME SHALL BE OF THE ESSENCE OF THIS AGREEMENT. EXCEPT AS OTHERWISE SET FORTH HEREIN, SPECIFIED TIMES OF DAY REFER TO NEW YORK CITY TIME.

SECTION 19. Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original, but all such counterparts shall together constitute one and the same Agreement. Counterparts may be delivered via facsimile, electronic mail (including any electronic signature covered by the U.S. federal ESIGN Act of 2000, Uniform Electronic Transactions Act, the Electronic Signatures and Records Act or other applicable law, e.g., www.docusign.com) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

SECTION 20. Effect of Headings. The Section headings herein are for convenience only and shall not affect the construction hereof.

If the foregoing is in accordance with your understanding of our agreement, please sign and return to the Company a counterpart hereof, whereupon this instrument, along with all counterparts, will become a binding agreement among the Underwriters and the Company in accordance with its terms.

Very truly yours,

PULMONX CORPORATION

By ______________________________
Title:

CONFIRMED AND ACCEPTED,
as of the date first above written:

BOFA SECURITIES, INC.

By ______________________________
Authorized Signatory

MORGAN STANLEY & CO. LLC

By ______________________________
Authorized Signatory

For themselves and as Representatives of the other Underwriters named in Schedule A hereto.

SCHEDULE A

The initial public offering price per share for the Securities shall be $[●].

The purchase price per share for the Securities to be paid by the several Underwriters shall be $[●], being an amount equal to the initial public offering price set forth above less $[□] per share, subject to adjustment in accordance with Section 2(b) for dividends or distributions declared by the Company and payable on the Initial Securities but not payable on the Option Securities.

Name of Underwriter	Number of Initial Securities
BofA Securities, Inc.	[●]
Morgan Stanley & Co. LLC	[●]
Stifel, Nicolaus & Company, Incorporated	[●]
Wells Fargo Securities, LLC	[●]
Canaccord Genuity LLC	[●]
Total	[●]

SCHEDULE B-1

Pricing Terms

1. The Company is selling [●] shares of Common Stock.

2. The Company has granted an option to the Underwriters, severally and not jointly, to purchase up to an additional [●] shares of Common Stock.

3. The initial public offering price per share for the Securities shall be $[●].

SCHEDULE B-2

Free Writing Prospectuses

SCHEDULE B-3

Written Testing-the-Waters Communication

SCHEDULE C

List of Persons and Entities Subject to Lock-Up

Exhibit A

FORM OF LOCK-UP FROM DIRECTORS, OFFICERS, OR OTHER STOCKHOLDERS PURSUANT TO SECTION 5(i)

________________, 2020

BofA Securities, Inc.
Morgan Stanley & Co. LLC

as Representatives of the several
Underwriters to be named in the
within-mentioned Underwriting Agreement

c/o BofA Securities, Inc.
One Bryant Park
New York, New York 10036

Morgan Stanley & Co. LLC
1585 Broadway
New York, New York 10036

Re: Proposed Public Offering by Pulmonx Corporation

Dear Ladies and Gentlemen:

The undersigned, a stockholder and/or a stock option holder and/or an officer and/or a director, as applicable, of Pulmonx Corporation, a Delaware corporation (the "Company"), understands that BofA Securities, Inc. ("BofAS") and Morgan Stanley & Co. LLC ("Morgan Stanley") propose to enter into an Underwriting Agreement (the "Underwriting Agreement") with the Company and the other Underwriters party thereto providing for the public offering (the "Public Offering") of shares of the Company's common stock, par value $0.001 per share (the "Common Stock"). In recognition of the benefit that the Public Offering will confer upon the undersigned as a stockholder and/or a stock option holder and/or an officer and/or a director, as applicable, of the Company, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned agrees with each Underwriter to be named in the Underwriting Agreement that, during the period beginning on the date hereof and ending on the date that is 180 days from the date of the Underwriting Agreement (the "Lock-Up Period"), the undersigned will not, without the prior written consent of BofAS and Morgan Stanley, (i) directly or indirectly, offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase or otherwise transfer or dispose of any shares of the Company's Common Stock or any securities convertible into or exercisable or exchangeable for shares of Common Stock, whether now owned or hereafter acquired by the undersigned or with respect to which the undersigned has or hereafter acquires the power of disposition (collectively, the "Lock-Up Securities"), or exercise any right with respect to the registration of any of the Lock-Up Securities, or file, cause to be filed or cause to be confidentially submitted any registration statement in connection therewith, under the Securities Act of 1933, as amended, (ii) enter into any swap or any other agreement or any transaction that transfers, in whole or in part, directly or indirectly, the economic consequence of ownership of the Lock-Up Securities, whether any such swap or transaction is to be settled by delivery of shares of Common Stock or other securities, in cash or otherwise or (iii) publicly disclose the intention to do any of the foregoing described in clauses (i) and (ii) above. If the undersigned is an officer or director of the Company, the undersigned further agrees that the foregoing provisions shall be equally applicable to any issuer-directed shares of Common Stock the undersigned may purchase in the Public Offering.

If the undersigned is an officer or director of the Company, (1) BofAS and Morgan Stanley agree that, at least three business days before the effective date of any release or waiver of the foregoing restrictions in connection with a transfer of shares of Common Stock, BofAS and Morgan Stanley will notify the Company of the impending release or waiver, and (2) the Company has agreed, or will agree, in the Underwriting Agreement to announce the impending release or waiver by (A) press release through a major news service at least two business days before the effective date of the release or waiver or (B) any other method reasonably acceptable to BofAS and Morgan Stanley that satisfies the obligations described in Financial Industry Regulatory Authority, Inc. Rule 5131(d)(2). Any release or waiver granted by BofAS and Morgan Stanley hereunder to any such officer or director shall only be effective two business days after the publication date of such press release. The provisions of this paragraph will not apply if (i) the release or waiver is effected solely to permit a transfer not for consideration and (ii) the transferee has agreed in writing to be bound by the same terms described in this lock-up agreement to the extent and for the duration that such terms remain in effect at the time of the transfer.

Notwithstanding the foregoing, and subject to the applicable conditions below, the undersigned may transfer the Lock-Up Securities without the prior written consent of BofAS and Morgan Stanley:

a) provided that (1) BofAS and Morgan Stanley receive a signed lock-up agreement for the balance of the Lock-Up Period from each donee, trustee, distributee, or transferee, as the case may be, (2) any such transfer shall not involve a disposition for value, (3) any such transfer is not required to be reported with the Securities and Exchange Commission (the “SEC”) on Form 4 in accordance with Section 16 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and (4) no other public announcement, report or filing shall be required or shall be voluntarily effected during the Lock-Up Period:

(i) as a *bona fide* gift or gifts or for *bona fide* estate planning purposes; or

(ii) to the immediate family of the undersigned or any trust or other entity for the direct or indirect benefit of the undersigned or the immediate family of the undersigned (for purposes of this lock-up agreement, “immediate family” shall mean any relationship by blood, marriage or adoption, not more remote than first cousin) or if the undersigned is a trust, to any beneficiary of the undersigned (including such beneficiary’s estate); or

(iii) as a distribution to limited partners, general partners, limited liability company members, stockholders or other equity holders of the undersigned; or

(iv) to the undersigned's affiliates, including any direct or indirect subsidiary of the undersigned, or to any investment fund or other entity controlled or managed by the undersigned; or

b) to the underwriters in the Public Offering; or

c) to the Company upon exercise of any right in respect of any option granted under any equity incentive plan of the Company described in the final prospectus relating to the Public Offering or any warrant to purchase securities of the Company described in the final prospectus relating to the Public Offering including the surrender of shares of Common Stock to the Company in "net" or "cashless" exercise of any option or warrant; provided that (1) the shares of Common Stock received by the undersigned upon exercise continue to be subject to the restrictions on transfer set forth in this lock-up agreement, (2) if required, any public report or filing under Section 16 of the Exchange Act shall clearly indicate in the footnotes thereto that such transfer is being made pursuant to the circumstances described in this clause (c), that no shares were sold by the reporting person and that the shares received upon exercise of the stock option are subject to a lock-up agreement with the Underwriters and (3) no other public announcement, report or filing shall be required or shall be voluntarily effected during the Lock-Up Period; or

d) to the Company in connection with the repurchase by the Company from the undersigned of shares of Common Stock or other Lock-Up Securities pursuant to a repurchase right arising upon the termination of the undersigned's employment with the Company; provided that such repurchase right is pursuant to contractual agreements with the Company; provided further that any filing required by Section 16 of the Exchange Act shall clearly indicate in the footnotes thereto that the such transfer is being made pursuant to the circumstances described in this clause (d); provided further that no other public announcement, report or filing shall be required or shall be voluntarily made effected during the Lock-Up Period; or

e) to convert shares of preferred stock of the Company into shares of Common Stock of the Company in connection with, and disclosed in the prospectus for, the Public Offering, provided that any shares of Common Stock received upon such conversion remain subject to the terms of this lock-up agreement; provided further that if required, any public report or filing under Section 16 of the Exchange Act shall clearly indicate in the footnotes thereto that such transfer is being made pursuant to the circumstances described in this clause (e); or

f) pursuant to a bona fide third-party tender offer, merger, consolidation or other similar transaction made to all holders of the Company's capital stock involving a Change of Control (as defined below) of the Company that has been approved by the Company's board of directors, provided that in the event that such tender offer, merger, consolidation or other such transaction is not completed, the Lock-Up Securities owned by the undersigned shall remain subject to the provisions of this lock-up agreement; provided further that any shares of the Common Stock not transferred in such third-party tender offer, merger, consolidation, or other similar transaction shall remain subject to the provisions of this lock-up agreement; or

g) pursuant to an order of a court of competent jurisdiction or in connection with a qualified domestic order or divorce settlement, provided that the shares of Common Stock received by the transferee continue to be subject to the restrictions on transfer set forth in this lock-up agreement; provided further that any filing required by Section 16 of the Exchange Act shall clearly indicate in the footnotes that such transfer is being made pursuant to the circumstances described in this clause (g) and no other public announcement, report or filing shall be required or shall be voluntarily effected during the Lock-Up Period; or

h) by will or intestate succession upon the death of the undersigned, including to the transferee's nominee or custodian, provided that the Lock-Up Securities so transferred shall remain subject to the terms of this lock-up agreement; and provided further that any filing required by Section 16 of the Exchange Act shall clearly indicate in the footnotes thereto that such transfer is being made pursuant to the circumstances described in this clause (h) and no other public announcement, report or filing shall be required or shall be voluntarily effected during the Lock-Up Period.

For purposes of clause (f) above, "Change of Control" shall mean the consummation of any bona fide third party tender offer, merger, consolidation or other similar transaction the result of which is that any "person" (as defined in Section 13(d)(3) of the Exchange Act), or group of persons, becomes the beneficial owner (as defined in Rules 13d-3 and 13d-5 of the Exchange Act) of more than 50% of total voting power of the voting stock of the Company.

Furthermore, during the Lock-Up Period, the undersigned may sell shares of Common Stock of the Company purchased by the undersigned in the Public Offering (other than any issuer-directed shares) or on the open market following the Public Offering if and only if (i) such sales are not required to be reported with the SEC on Form 4 in accordance with Section 16 of the Exchange Act, or otherwise and (ii) no other public announcement, report or filing shall be required or shall be voluntarily effected during the Lock-Up Period.

Nothing herein shall prevent the undersigned from establishing a 10b5-1 trading plan that complies with Rule 10b5-1 under the Exchange Act ("10b5-1 trading plan") so long as there are no sales of Lock-Up Securities under such plans during the Lock-Up Period; and provided that the establishment of a 10b5-1 trading plan or the amendment of a 10b5-1 trading plan shall only be permitted if (i) the establishment of such plan is not required to be reported in any public report or filing with the SEC, or otherwise and (ii) no other public announcement, report or filing shall be required or shall be voluntarily effected during the Lock-Up Period.

The undersigned also agrees and consents to the entry of stop transfer instructions with the Company's transfer agent and registrar against the transfer of the Lock-Up Securities except in compliance with the foregoing restrictions.

The undersigned hereby represents and warrants that the undersigned has full power, capacity and authority to enter into this lock-up agreement. This lock-up agreement is irrevocable and will be binding on the undersigned and the successors, heirs, personal representatives and assigns of the undersigned.

The undersigned hereby agrees that, to the extent that the terms of this lock-up agreement conflict with or are in any way inconsistent with any investor rights agreement, any market standoff agreement, stock option agreement, stock purchase agreement, or any other lock-up agreement related to the Common Stock to which the undersigned and the Company may be party, this lock-up agreement supersedes such investor rights agreement, market standoff agreement or other lock-up agreement.

Notwithstanding anything to the contrary contained herein, this lock-up agreement will automatically terminate and the undersigned will be released from all of his, her or its obligations hereunder upon the earliest to occur, if any, of (i) the date the Company advises BofAS and Morgan Stanley in writing, that it has determined not to proceed with the Public Offering, (ii) the date the Company files an application with the SEC to withdraw the registration statement related to the Public Offering, (iii) the date the Underwriting Agreement is terminated prior to payment for and delivery of the shares of Common Stock to be sold thereunder or (iv) June 30, 2021, in the event that the Underwriting Agreement has not been executed by such date (provided, that the Company may by written notice to the undersigned prior to such date extend such date for a period of up to an additional six months).

The undersigned acknowledges and agrees that the Underwriters have not provided any recommendation or investment advice nor have the Underwriters solicited any action from the undersigned with respect to the Public Offering of shares of Common Stock and the undersigned has consulted their own legal, accounting, financial, regulatory and tax advisors to the extent deemed appropriate.

This agreement shall be governed by and construed in accordance with the laws of the State of New York.

[*Signature page follows*]

Very truly yours,

[*If signatory is an individual*]

Signature: ______________________________

Name: ______________________________

[*If signatory is an entity*]

Entity: ______________________________

Signature: ______________________________

Name: ______________________________

Title: ______________________________

[*Signature page – Lock-Up Agreement*]

Exhibit B

FORM OF PRESS RELEASE
TO BE ISSUED PURSUANT TO SECTION 3(j)

Pulmonx Corporation
, 20

Pulmonx Corporation (the "Company") announced today that BofA and Morgan Stanley, the lead book-running managers in the Company's recent public sale of [●] shares of common stock, is [waiving] [releasing] a lock-up restriction with respect to shares of the Company's common stock held by [certain officers or directors] [an officer or director] of the Company. The [waiver] [release] will take effect on , 20 , and the shares may be sold on or after such date.

This press release is not an offer for sale of the securities in the United States or in any other jurisdiction where such offer is prohibited, and such securities may not be offered or sold in the United States absent registration or an exemption from registration under the United States Securities Act of 1933, as amended.

Exhibit C

FORM OF CHIEF FINANCIAL OFFICER’S CERTIFICATE TO BE ISSUED PURSUANT TO SECTION 5(j)

AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF PULMONX CORPORATION

The undersigned, Glendon E. French, hereby certifies that:

1. He is the duly elected and acting President of Pulmonx Corporation, a Delaware corporation.

2. The Certificate of Incorporation of this corporation was originally filed with the Secretary of State of Delaware on December 4, 2013 under the name of Pulmonx Corporation.

3. The Certificate of Incorporation of this corporation shall be amended and restated to read in full as follows:

ARTICLE I

The name of this corporation is Pulmonx Corporation (the "Corporation").

ARTICLE II

The address of the Corporation's registered office in the State of Delaware is: Corporation Trust Center, 1209 Orange Street, Wilmington, New Castle County, Delaware 19801. The name of its registered agent at such address is: The Corporation Trust Company.

ARTICLE III

The purpose of the Corporation is to engage in any lawful act or activity for which corporations may be organized under the Delaware General Corporation Law.

ARTICLE IV

(A) **Classes of Stock**. The Corporation is authorized to issue two classes of stock to be designated, respectively, "Common Stock" and "Preferred Stock." The total number of shares which the Corporation is authorized to issue is Two Hundred Twenty-Two Million Eight Hundred Seventy-Four Thousand Three Hundred Forty-One (222,874,341) shares, each with a par value of $0.001 per share. Two Hundred Million (200,000,000) shares shall be Common Stock and Twenty-Two Million Eight Hundred Seventy-Four Thousand Three Hundred Forty-One (22,874,341) shares shall be Preferred Stock.

Upon the acceptance of this Amended and Restated Certificate of Incorporation for filing with the Secretary of State of the State of Delaware (the "***Effective Time***"):

1. **Common**. Each ten (10) shares of Common Stock issued and outstanding immediately prior to the Effective Time shall, automatically and without any action on the part of the respective holders thereof and whether or not the certificates representing such shares are surrendered to the Corporation or its transfer agent, be combined and converted into one (1)

share of Common Stock. All shares of Common Stock (including fractions thereof) held by a holder thereof shall be aggregated into the maximum number of resulting whole shares. For any remaining fraction of a share, the Corporation shall, in lieu of issuing a fractional share, pay cash to such holder equal to the product of such fraction multiplied by the fair market value of one share of Common Stock (after giving effect to the foregoing reverse stock split) as determined by the Corporation's Board of Directors.

2. **Series A-1 Preferred**. Each ten (10) shares of Series A-1 Preferred Stock issued and outstanding immediately prior to the Effective Time shall, automatically and without any action on the part of the respective holders thereof and whether or not the certificates representing such shares are surrendered to the Corporation or its transfer agent, be combined and converted into one (1) share of Series A-1 Preferred Stock. All shares of Series A-1 Preferred Stock (including fractions thereof) held by a holder thereof shall be aggregated into the maximum number of resulting whole shares. For any remaining fraction of a share, the Corporation shall, in lieu of issuing a fractional share, pay cash to such holder equal to the product of such fraction multiplied by the fair market value of one share of Series A-1 Preferred Stock (after giving effect to the foregoing reverse stock split) as determined by the Corporation's Board of Directors.

3. **Series B-1 Preferred**. Each ten (10) shares of Series B-1 Preferred Stock issued and outstanding immediately prior to the Effective Time shall, automatically and without any action on the part of the respective holders thereof and whether or not the certificates representing such shares are surrendered to the Corporation or its transfer agent, be combined and converted into one (1) share of Series B-1 Preferred Stock. All shares of Series B-1 Preferred Stock (including fractions thereof) held by a holder thereof shall be aggregated into the maximum number of resulting whole shares. For any remaining fraction of a share, the Corporation shall, in lieu of issuing a fractional share, pay cash to such holder equal to the product of such fraction multiplied by the fair market value of one share of Series B-1 Preferred Stock (after giving effect to the foregoing reverse stock split) as determined by the Corporation's Board of Directors.

4. **Series C-1 Preferred**. Each ten (10) shares of Series C-1 Preferred Stock issued and outstanding immediately prior to the Effective Time shall, automatically and without any action on the part of the respective holders thereof and whether or not the certificates representing such shares are surrendered to the Corporation or its transfer agent, be combined and converted into one (1) share of Series C-1 Preferred Stock. All shares of Series C-1 Preferred Stock (including fractions thereof) held by a holder thereof shall be aggregated into the maximum number of resulting whole shares. For any remaining fraction of a share, the Corporation shall, in lieu of issuing a fractional share, pay cash to such holder equal to the product of such fraction multiplied by the fair market value of one share of Series C-1 Preferred Stock (after giving effect to the foregoing reverse stock split) as determined by the Corporation's Board of Directors.

5. **Series D-1 Preferred**. Each ten (10) shares of Series D-1 Preferred Stock issued and outstanding immediately prior to the Effective Time shall, automatically and without

any action on the part of the respective holders thereof and whether or not the certificates representing such shares are surrendered to the Corporation or its transfer agent, be combined and converted into one (1) share of Series D-1 Preferred Stock. All shares of Series D-1 Preferred Stock (including fractions thereof) held by a holder thereof shall be aggregated into the maximum number of resulting whole shares. For any remaining fraction of a share, the Corporation shall, in lieu of issuing a fractional share, pay cash to such holder equal to the product of such fraction multiplied by the fair market value of one share of Series D-1 Preferred Stock (after giving effect to the foregoing reverse stock split) as determined by the Corporation's Board of Directors.

6. **Series E-1 Preferred**. Each ten (10) shares of Series E-1 Preferred Stock issued and outstanding immediately prior to the Effective Time shall, automatically and without any action on the part of the respective holders thereof and whether or not the certificates representing such shares are surrendered to the Corporation or its transfer agent, be combined and converted into one (1) share of Series E-1 Preferred Stock. All shares of Series E-1 Preferred Stock (including fractions thereof) held by a holder thereof shall be aggregated into the maximum number of resulting whole shares. For any remaining fraction of a share, the Corporation shall, in lieu of issuing a fractional share, pay cash to such holder equal to the product of such fraction multiplied by the fair market value of one share of Series E-1 Preferred Stock (after giving effect to the foregoing reverse stock split) as determined by the Corporation's Board of Directors.

7. **Series F-1 Preferred**. Each ten (10) shares of Series F-1 Preferred Stock issued and outstanding immediately prior to the Effective Time shall, automatically and without any action on the part of the respective holders thereof and whether or not the certificates representing such shares are surrendered to the Corporation or its transfer agent, be combined and converted into one (1) share of Series F-1 Preferred Stock. All shares of Series F-1 Preferred Stock (including fractions thereof) held by a holder thereof shall be aggregated into the maximum number of resulting whole shares. For any remaining fraction of a share, the Corporation shall, in lieu of issuing a fractional share, pay cash to such holder equal to the product of such fraction multiplied by the fair market value of one share of Series F-1 Preferred Stock (after giving effect to the foregoing reverse stock split) as determined by the Corporation's Board of Directors.

8. **Series G-1 Preferred**. Each ten (10) shares of Series G-1 Preferred Stock issued and outstanding immediately prior to the Effective Time shall, automatically and without any action on the part of the respective holders thereof and whether or not the certificates representing such shares are surrendered to the Corporation or its transfer agent, be combined and converted into one (1) share of Series G-1 Preferred Stock. All shares of Series G-1 Preferred Stock (including fractions thereof) held by a holder thereof shall be aggregated into the maximum number of resulting whole shares. For any remaining fraction of a share, the Corporation shall, in lieu of issuing a fractional share, pay cash to such holder equal to the product of such fraction multiplied by the fair market value of one share of Series G-1 Preferred Stock (after giving effect to the foregoing reverse stock split) as determined by the Corporation's Board of Directors.

The splits made pursuant to subsections 1-8 above are referred to herein as the "Reverse Stock Split." Unless otherwise specifically noted in this Amended and Restated Certificate of Incorporation, all share numbers and prices per share have been adjusted to reflect the Reverse Stock Split.

(B) **Increase in Authorized Common Stock**. Notwithstanding the provisions of Section 242(b)(2) of the Delaware General Corporation Law, as amended, the authorized number of shares of Common Stock may be increased or decreased (but not below the number of shares of Common Stock then outstanding and the number of shares of Common Stock reserved for issuance upon the exercise or conversion of convertible or exchangeable securities then outstanding) by the affirmative vote of the holders of a majority of the stock of the Corporation (voting together on an as-if converted basis).

(C) **Rights, Preferences and Restrictions of Preferred Stock**. The Preferred Stock authorized by this Amended and Restated Certificate of Incorporation (the "Restated Certificate") may be issued from time to time in one or more series. The first series of Preferred Stock shall be designated "Series A-1 Preferred Stock" and shall consist of Eight Hundred Forty-Eight Thousand Six Hundred Twenty-Three (848,623) shares. The second series of Preferred Stock shall be designated "Series B-1 Preferred Stock" and shall consist of Two Million Four Hundred Twenty-Two Thousand Four Hundred Sixty-Eight (2,422,468) shares. The third series of Preferred Stock shall be designated "Series C-1 Preferred Stock" and shall consist of Three Million Nine Hundred Forty-Two Thousand Two Hundred Ninety-Eight (3,942,298) shares. The fourth series of Preferred Stock shall be designated "Series D-1 Preferred Stock" and shall consist of Nine Hundred Forty Thousand (940,000) shares. The fifth series of Preferred Stock shall be designated "Series E-1 Preferred Stock" and shall consist of Nine Hundred Twenty-Three Thousand Seventy-Seven (923,077) shares. The sixth series of Preferred Stock shall be designated "Series F-1 Preferred Stock" and shall consist of Three Million Seven Hundred Eighty-Seven Thousand Eight Hundred Seventy-Nine (3,787,879) shares. The seventh series of Preferred Stock shall be designated "Series G-1 Preferred Stock" and shall consist of Ten Million Nine Thousand Nine Hundred Ninety-Six (10,009,996) shares. The rights, preferences, privileges, and restrictions granted to and imposed on the Preferred Stock are as set forth below in this Section C of Article IV.

1. **Dividend Provisions**. The holders of shares of Preferred Stock shall be entitled to receive dividends, out of any assets legally available therefor, prior and in preference to any declaration or payment of any dividend (payable other than in Common Stock or other securities and rights convertible into or entitling the holder thereof to receive, directly or indirectly, additional shares of Common Stock of the Corporation) on the Common Stock of the Corporation, at the rate of (i) $0.7672 per share (as adjusted for stock splits, stock dividends, reclassifications or the like) per annum on each outstanding share of Series A-1 Preferred Stock; (ii) $0.8456 per share (as adjusted for stock splits, stock dividends, reclassifications or the like) per annum on each outstanding share of Series B-1 Preferred Stock; (iii) $0.8456 per share (as adjusted for stock splits, stock dividends, reclassifications or the like) per annum on each outstanding share of Series C-1 Preferred Stock; (iv) $0.88 per share (as adjusted for stock splits, stock dividends, reclassifications or the like) per annum on each outstanding share of Series D-1 Preferred Stock; (v) $1.04 per share (as adjusted for stock splits, stock dividends,

reclassifications or the like) per annum on each outstanding share of Series E-1 Preferred Stock, (vi) $1.056 per share (as adjusted for stock splits, stock dividends, reclassifications or the like) per annum on each outstanding share of Series F-1 Preferred Stock and (vii) $1.056 per share (as adjusted for stock splits, stock dividends, reclassifications or the like) per annum on each outstanding share of Series G-1 Preferred Stock, payable quarterly when, as and if declared by the Board of Directors. Such dividends shall not be cumulative. After payment of such dividends, any additional dividends shall be distributed among the holders of Series A-1 Preferred Stock, Series B-1 Preferred Stock, Series C-1 Preferred Stock, Series D-1 Preferred Stock, Series E-1 Preferred Stock, Series F-1 Preferred Stock, Series G-1 Preferred Stock and Common Stock pro rata based on the number of shares of Common Stock then held by each holder (assuming conversion of all such Series A-1 Preferred Stock, Series B-1 Preferred Stock, Series C-1 Preferred Stock, Series D-1 Preferred Stock, Series E-1 Preferred Stock, Series F-1 Preferred Stock and Series G-1 Preferred Stock into Common Stock). No dividends may be paid on any other class or series of the Corporation's equity securities until all declared and unpaid dividends on the Preferred Stock have been paid in full.

2. **Liquidation**.

(a) In the event of any liquidation, dissolution or winding up of the Corporation, either voluntary or involuntary, distributions shall be made in the following manner, subject to the terms of the Corporation's Amended and Restated 2015 Management Incentive Plan (the "MIP"):

(i) **Series G-1 Liquidation Preference**. The holders of Series G-1 Preferred Stock shall be entitled to receive, prior and in preference to any distribution of any of the assets of the Corporation or any such consideration to the holders of Series A-1 Preferred Stock, Series B-1 Preferred Stock, Series C-1 Preferred Stock and Series D-1 Preferred Stock (together, the "Junior Preferred Stock"), the holders of Series E-1 Preferred Stock, the holders of Series F-1 Preferred Stock or the holders of Common Stock by reason of their ownership thereof, an amount per share equal to $13.20 per share (as adjusted for stock splits, stock dividends, reclassifications and the like) for each share of Series G-1 Preferred Stock then held by them, plus declared but unpaid dividends on the Series G-1 Preferred Stock (the "Series G-1 Liquidation Preference"). If, upon the occurrence of such liquidation, dissolution or winding up of the Corporation, the assets and funds thus distributed among the holders of the Series G-1 Preferred Stock shall be insufficient to permit the payment to such holders of the full aforesaid preferential amounts pursuant to this Section 2(a)(i), then the entire assets and funds of the Corporation legally available for distribution shall be distributed with equal priority and ratably among the holders of the Series G-1 Preferred Stock in proportion to the preferential amount each such holder is otherwise entitled to receive pursuant to this Section 2(a)(i).

(ii) **Series F-1 Liquidation Preference**. After the payment in full of the Series G-1 Liquidation Preference as set forth in Section 2(a)(i) above, the holders of Series F-1 Preferred Stock shall be entitled to receive, prior and in preference to any distribution of any of the assets of the Corporation or any such consideration to the holders of Junior Preferred Stock, the holders of Series E-1 Preferred Stock or the holders of Common Stock by reason of their ownership thereof, an amount per share equal to $13.20 per share (as adjusted for stock splits, stock dividends, reclassifications and the like) for each share of Series F-1 Preferred Stock then held by them, plus declared but unpaid dividends on the Series F-1 Preferred Stock (the "Series F-1 Liquidation Preference"). If, upon the occurrence of such liquidation, dissolution or winding up of the Corporation, after payment in full of the Series G-1 Liquidation Preference pursuant to Section 2(a)(i), the assets and funds thus distributed among the holders of the Series F-1 Preferred Stock shall be insufficient to permit the payment to such holders of the full aforesaid preferential amounts pursuant to this Section 2(a)(ii), then the entire assets and funds of the Corporation legally available for distribution shall be distributed with equal priority and ratably among the holders of the Series F-1 Preferred Stock in proportion to the preferential amount each such holder is otherwise entitled to receive pursuant to this Section 2(a)(ii).

(iii) **Series E-1 Liquidation Preference**. After the payment in full of the Series G-1 Liquidation Preference and Series F-1 Liquidation Preference as set forth in Sections 2(a)(i) and (ii) above, respectively, the holders of Series E-1 Preferred Stock shall be entitled to receive, prior and in preference to any distribution of any of the assets of the Corporation or any such consideration to the holders of Junior Preferred Stock or the holders of Common Stock by reason of their ownership thereof, an amount per share equal to $13.00 per share (as adjusted for stock splits, stock dividends, reclassifications and the like) for each share of Series E-1 Preferred Stock then held by them, plus declared but unpaid dividends on the Series E-1 Preferred Stock (the "Series E-1 Liquidation Preference"). If, upon the occurrence of such liquidation, dissolution or winding up of the Corporation, after payment in full of the Series G-1 Liquidation Preference and Series F-1 Liquidation Preference pursuant to Sections 2(a)(i) and (ii), respectively, the assets and funds thus distributed among the holders of the Series E-1 Preferred Stock shall be insufficient to permit the payment to such holders of the full aforesaid preferential amounts pursuant to this Section 2(a)(iii), then the entire assets and funds of the Corporation legally available for distribution shall be distributed with equal priority and ratably among the holders of the Series E-1 Preferred Stock in proportion to the preferential amount each such holder is otherwise entitled to receive pursuant to this Section 2(a)(iii).

(iv) **Junior Preferred Liquidation Preference**. After the payment in full of the Series G-1 Liquidation Preference, Series F-1 Liquidation Preference and the Series E-1 Liquidation Preference as set forth in Sections 2(a)(i), (ii) and (iii) above, respectively, the holders of the Junior Preferred Stock shall be entitled to receive, prior and in preference to any distribution of any of the assets of the Corporation or any such consideration to the holders of Common Stock by reason of their ownership thereof, an amount per share equal to (i) $9.59 per share (as adjusted for stock splits, stock dividends, reclassifications or the like) for each share of Series A-1 Preferred Stock then held by them, plus declared but unpaid dividends on the Series A-1 Preferred Stock; (ii) $10.57 per share (as adjusted for stock splits, stock dividends, reclassifications and the like) for each share of Series B-1 Preferred Stock then held by them, plus declared but unpaid dividends on the Series B-1 Preferred Stock; (iii) $10.57 per share (as adjusted for stock splits, stock dividends, reclassifications and the like) for each share of Series C-1 Preferred Stock then held by them, plus declared but unpaid dividends on the Series C-1 Preferred Stock and (iv) $11.00 per share (as adjusted for stock splits, stock dividends, reclassifications and the like) for each share of Series D-1 Preferred Stock then held by them, plus declared but unpaid dividends on the Series D-1 Preferred Stock. If, upon the occurrence of such liquidation, dissolution or winding up of the Corporation, after payment in full of the Series G-1 Liquidation Preference, Series F-1 Liquidation Preference and Series E-1 Liquidation Preference pursuant to Sections 2(a)(i), (ii) and (iii), respectively, the assets and funds thus distributed among the holders of the Junior Preferred Stock shall be insufficient to permit the payment to such holders of the full aforesaid preferential amounts pursuant to this Section 2(a)(iv), then the entire remaining assets and funds of the Corporation legally available for distribution shall be distributed with equal priority and ratably among the holders of the Junior Preferred Stock in proportion to the preferential amount each such holder is otherwise entitled to receive pursuant to this Section 2(a)(iv).

(v) **Additional Series F-1 Preferred Stock Preference**. In the event of a Liquidation Transaction involving one or more third parties other than the purchaser of Series F-1 Preferred Stock or its affiliates pursuant to that certain Series F-1 Preferred Stock Purchase Agreement by and between the Corporation and such purchaser, dated June 8, 2015, as the same may be amended and/or restated, and after the payment in full of the amounts required to be paid by Sections 2(a)(i), (ii), (iii) and (iv), the holders of the Series F-1 Preferred Stock shall be entitled to receive, prior and in preference to any distribution of any of the assets of the Corporation or any such consideration to the holders of Common Stock by reason of their ownership thereof, an amount equal to the Additional Preference (as defined below) for each share of Series F-1 Preferred Stock then held by them; provided, that if the portion of the consideration payable to the stockholders of the Corporation upon the closing of such Liquidation Transaction (including any amounts placed in escrow or subject to holdback to satisfy indemnification obligations of the Corporation and/or its stockholders and any amounts that are to be paid subject only to the passage of time or to similar non-performance based contingencies or otherwise guaranteed to be paid) (collectively, the "Initial Payment") is less than $250,000,000, the holders of Series F-1 Preferred Stock shall not be entitled to receive the Additional Preference; provided, further, that if the Initial Payment is less than $250,000,000 and the portion of all additional consideration (exclusive of any portion of the Initial Payment) that becomes earned or payable to the stockholders of the Corporation on or before the one (1) year anniversary of the closing of such Liquidation Transaction (collectively, the "Additional Payments") when combined with the Initial Payment is equal to or greater than $250,000,000, the holders of Series F-1 Preferred Stock shall be entitled to receive the Additional Preference which, in such case, shall be payable out of such Additional Payments. If such Additional Payments are insufficient to permit payment in full of the Additional Preference, such Additional Preference shall be paid prior and in preference to any distribution of any assets or any such consideration under Sections 2(a)(i), (ii), (iii) and (iv) above and Section 2(b) below, until the entire Additional Preference is paid to each holder of Series F-1 Preferred Stock. If, upon the occurrence of such Liquidation Transaction, the assets and funds thus distributed among the holders of the Series F-1 Preferred Stock shall be insufficient to permit the payment to the holders of the Series F-1 Preferred Stock of the full aforesaid Additional Preference pursuant to this Section 2(a)(v), then the entire assets and funds of the Corporation legally available for distribution under this Section 2(a)(v) shall be distributed with equal priority and ratably among the holders of the Series F-1 Preferred Stock in proportion to the preferential amount each such holder is otherwise entitled to receive pursuant to this Section 2(a)(v) until such time as all amounts payable under this Section 2(a)(v) shall have been received by the holders of Series F-1 Preferred Stock. For purposes of this Section 2(a)(v), "Additional Preference" shall mean (i) if the sum of the Initial Payment and all Additional Payments is equal to or greater than $250,000,000 but less than $300,000,000, an amount equal to $3.33 per share (as adjusted for stock splits, stock dividends, reclassifications and the like) for each share of Series F-1 Preferred Stock then held by them, (ii) if the sum of the Initial Payment and all Additional Payments is equal to or greater than $300,000,000 but less than $350,000,000, an amount equal to $5.00 per share (as adjusted for stock splits, stock dividends, reclassifications and the like) for each share of Series F-1 Preferred Stock then held by them, and (iii) if the sum of the Initial Payment and all Additional Payments is equal to or greater than $350,000,000, an amount equal to $6.66 per share (as adjusted for stock splits, stock dividends, reclassifications and the like) for each share of Series F-1 Preferred Stock then held by them.

(b) **Remaining Assets**. Upon the completion of the distributions required by Sections 2(a)(i), (ii), (iii), (iv) and (v) above, if assets or any such consideration remain in the Corporation, then the remaining assets and funds of the Corporation legally available for distribution shall be paid as follows: the holders of the Common Stock, the Series A-1 Preferred Stock, the Series B-1 Preferred Stock, the Series C-1 Preferred Stock, the Series D-1 Preferred Stock, the Series E-1 Preferred Stock, the Series F-1 Preferred Stock and the Series G-1 Preferred Stock shall share in the remaining assets and funds of the Corporation legally available for distribution on a pro rata basis as if the Series A-1 Preferred Stock, Series B-1 Preferred Stock, Series C-1 Preferred Stock, Series D-1 Preferred Stock, Series E-1 Preferred Stock, Series F-1 Preferred Stock and Series G-1 Preferred Stock were converted into Common Stock at then-applicable Conversion Rate until, as to the Series A-1 Preferred Stock, the holders of the Series A-1 Preferred Stock shall have received an aggregate amount (including the amount received pursuant to Section 2(a)(iv) above) equal to $28.77 per share (as adjusted for stock splits, stock dividends, reclassifications or the like) of Series A-1 Preferred Stock (plus an amount equal to all declared but unpaid dividends on the Series A-1 Preferred Stock), and as to the Series B-1 Preferred Stock, the holders of the Series B-1 Preferred Stock shall have received an aggregate amount (including the amount received pursuant to Section 2(a)(iv) above) equal to $31.71 per share (as adjusted for stock splits, stock dividends, reclassifications or the like) of Series B-1 Preferred Stock (plus an amount equal to all declared but unpaid dividends on the Series B-1 Preferred Stock), and as to the Series C-1 Preferred Stock, the holders of the Series C-1 Preferred Stock shall have received an aggregate amount (including the amount received pursuant to Section 2(a)(iv) above) equal to $31.71 per share (as adjusted for stock splits, stock dividends, reclassifications or the like) of Series C-1 Preferred Stock (plus an amount equal to all declared but unpaid dividends on the Series C-1 Preferred Stock), and as to the Series D-1 Preferred Stock, the holders of the Series D-1 Preferred Stock shall have received an aggregate amount (including the amount received pursuant to Section 2(a)(iv) above) equal to $33.00 per share (as adjusted for stock splits, stock dividends, reclassifications or the like) of Series D-1 Preferred Stock (plus an amount equal to all declared but unpaid dividends on the Series D-1 Preferred Stock), and as to the Series E-1 Preferred Stock, the holders of the Series E-1 Preferred Stock shall have received an aggregate amount (including the amount received pursuant to Section 2(a)(iii) above) equal to $39.00 per share (as adjusted for stock splits, stock dividends, reclassifications or the like) of Series E-1 Preferred Stock (plus an amount equal to all declared but unpaid dividends on the Series E-1 Preferred Stock), and as to the Series F-1 Preferred Stock, the holders of the Series F-1 Preferred Stock shall have received an aggregate amount (including the amount received pursuant to Section 2(a)(ii) above, but excluding the amount received pursuant to Section 2(a)(v) above) equal to $39.60 per share (as adjusted for stock splits, stock dividends, reclassifications or the like) of Series F-1 Preferred Stock (plus an amount equal to all declared but unpaid dividends on the Series F-1 Preferred Stock), and as to the Series G-1 Preferred Stock, the holders of the Series G-1 Preferred Stock shall have received an aggregate amount (including the amount received pursuant to Section 2(a)(i) above) equal to $39.60 per share (as adjusted for stock splits, stock dividends, reclassifications or the like) of Series G-1 Preferred Stock (plus an amount equal to all declared but unpaid dividends on the Series G-1 Preferred Stock), and the holders of the Common Stock shall be entitled to receive ratably on a per-share basis all the remaining assets and funds of the Corporation legally available for distribution.

(c) **Certain Acquisitions**.

(i) **Deemed Liquidation**. For purposes of this Section 2, a liquidation, dissolution, or winding up of the Corporation shall be deemed to occur if (A) the Corporation or any of its subsidiaries shall sell, convey, or otherwise dispose of all or substantially all of the property or business of the Corporation and its subsidiaries taken as a whole, (B) the Corporation merges with or into or consolidates, whether in a single transaction or a series of related transactions, with any other corporation, limited liability company or other entity (other than a wholly-owned subsidiary of the Corporation), (C) one or more subsidiaries of the Corporation merges with or into or consolidates, whether in a single transaction or a series of related transactions, with any other corporation, limited liability company or other entity (other than a wholly-owned subsidiary of the Corporation) if substantially all of the assets of the Corporation and its subsidiaries taken as a whole are held by such subsidiary or subsidiaries, or (D) the Corporation or any of its subsidiaries grants an exclusive license to all or substantially all of the Corporation's intellectual property that is used to generate all or substantially all of the revenues of the Corporation and its subsidiaries taken as a whole (any such transaction, a "Liquidation Transaction"), provided that none of the following shall be considered a Liquidation Transaction: (i) a merger effected exclusively for the purpose of changing the domicile of the Corporation, (ii) an equity financing primarily for the purpose of funding the Corporation's business operations, (iii) a transaction in which the stockholders of the Corporation immediately prior to the transaction own more than 50% of the voting power of the surviving corporation following the transaction, or (iv) a transaction that the holders of at least a majority of the then outstanding shares of Preferred Stock, voting together as a single class, agree not to treat as a Liquidation Transaction.

(ii) **Valuation of Consideration**. In the event of a Liquidation Transaction, if the consideration received by the Corporation is other than cash, its value will be deemed its fair market value as determined in good faith by the Board of Directors. Any securities shall be valued as follows:

(A) Securities not subject to investment letter or other similar restrictions on free marketability:

(1) If traded on a securities exchange or The Nasdaq Stock Market ("Nasdaq"), the value shall be deemed to be the average of the closing prices of the securities on such exchange or system over the thirty (30) day period (or portion thereof) ending three (3) days prior to the closing;

(2) If actively traded over-the-counter, the value shall be deemed to be the average of the closing bid or sale prices (whichever is applicable) over the thirty (30) day period (or portion thereof) ending three (3) days prior to the closing; and

(3) If there is no active public market, the value shall be the fair market value thereof, as determined in good faith by the Board of Directors.

(B) The method of valuation of securities subject to investment letter or other restrictions on free marketability (other than restrictions arising solely by virtue of a shareholder's status as an affiliate or former affiliate) shall be to make an appropriate discount from the market value determined as specified above in Section 2(c)(ii)(A) to reflect the approximate fair market value thereof, as determined in good faith by the Board of Directors.

(C) The Corporation shall, upon receipt of such determination, give prompt written notice of the determination to each holder of shares of Preferred Stock or Common Stock.

(D) In the event of a Liquidation Transaction, the date of the distribution shall be deemed to be the date such transaction closes.

(iii) **Notice of Liquidation Transaction**. The Corporation shall give each holder of record of Series A-1 Preferred Stock, Series B-1 Preferred Stock, Series C-1 Preferred Stock, Series D-1 Preferred Stock, Series E-1 Preferred Stock, Series F-1 Preferred Stock and Series G-1 Preferred Stock written notice of any impending Liquidation Transaction not later than 20 days prior to the stockholders' meeting called to approve such Liquidation Transaction, or 20 days prior to the closing of such Liquidation Transaction, whichever is earlier, and shall also notify such holders in writing of the final approval of such Liquidation Transaction. The first of such notices shall describe the material terms and conditions of the impending Liquidation Transaction and the provisions of this Section 2, and the Corporation shall thereafter give such holders prompt notice of any material changes. Unless such notice requirements are waived, the Liquidation Transaction shall not take place sooner than 20 days after the Corporation has given the first notice provided for herein or sooner than 10 days after the Corporation has given notice of any material changes provided for herein. Notwithstanding the other provisions of this Restated Certificate, all notice periods or requirements in this Section 2(c)(iii) may be shortened or waived, either before or after the action for which notice is required, upon the written consent of the holders of at least a majority of the then outstanding shares of Preferred Stock, voting together as a single class.

(iv) **Allocation of Escrow**. In the event of a Liquidation Transaction, if any portion of the consideration payable to the stockholders of the Corporation is placed into escrow and/or is payable to the stockholders of the Corporation subject to contingencies, the agreement or plan of merger or consolidation for such transaction shall provide that (a) the portion of such consideration that is not placed in escrow and not subject to any contingencies (the "Initial Consideration") shall be allocated among the stockholders of the Corporation in accordance with this Section 2 as if the Initial Consideration were the only consideration payable in connection with such Liquidation Transaction and (b) any additional consideration which becomes payable to the stockholders of the Corporation upon release from escrow or satisfaction of contingencies shall be allocated among the holders of capital stock of the Corporation in accordance with this Section 2 after taking into account the previous payment of the Initial Consideration as part of the same transaction.

(v) **Effect of Noncompliance**. In the event the requirements of this Section 2(c) are not complied with, the Corporation shall forthwith either cause the closing of the Liquidation Transaction to be postponed until the requirements of this Section 2 have been complied with, or cancel such Liquidation Transaction, in which event the rights, preferences, privileges and restrictions of the holders of Preferred Stock shall revert to and be the same as such rights, preferences, privileges and restrictions existing immediately prior to the date of the first notice referred to in Section 2(c)(iii).

3. **Redemption**. The Preferred Stock is not redeemable.

4. **Conversion**. The holders of the Preferred Stock shall have conversion rights as follows (the "Conversion Rights"):

(a) **Right to Convert**. Subject to Section 4(c), each share of Preferred Stock shall be convertible, at the option of the holder thereof, at any time after the date of issuance of such share, at the office of the Corporation or any transfer agent for such stock, into such number of fully paid and nonassessable shares of Common Stock as is determined by dividing (i) $9.59 in the case of the Series A-1 Preferred Stock, (ii) $10.57 in the case of the Series B-1 Preferred Stock, (iii) $10.57 in the case of the Series C-1 Preferred Stock, (iv) $11.00 in the case of the Series D-1 Preferred Stock, (v) $13.00 in the case of the Series E-1 Preferred Stock, (vi) $13.20 in the case of the Series F-1 Preferred Stock and (vii) $13.20 in the case of the Series G-1 Preferred Stock, by the Conversion Price applicable to such share, determined as hereafter provided, in effect on the date the certificate is surrendered for conversion. The initial "Conversion Price" per share shall be $9.59 for the Series A-1 Preferred Stock, $10.57 for the Series B-1 Preferred Stock, $10.57 for the Series C-1 Preferred Stock, $11.00 for the Series D-1 Preferred Stock, $13.00 for the Series E-1 Preferred Stock, $13.20 for the Series F-1 Preferred Stock and $13.20 for the Series G-1 Preferred Stock. Such initial Conversion Price shall be subject to adjustment as set forth in Sections 4(b) and 4(d). The number of shares of Common Stock into which each share of Preferred Stock of a series may be converted is referred to herein as the "Conversion Rate" for each such series.

(b) **Automatic Conversion**. Each share of Preferred Stock shall automatically be converted into fully paid, non-assessable shares of Common Stock at the

Conversion Rate at the time in effect for such share immediately upon the earlier of (i) except as provided below in Section 4(c), the Corporation's sale of its Common Stock in a firm commitment underwritten public offering pursuant to a registration statement under the Securities Act of 1933, as amended (the "Securities Act") (the "IPO"), which results in aggregate cash proceeds to the Corporation of not less than $30,000,000 (net of underwriting discounts and commissions) or (ii) the date specified by the vote or written consent of the holders of at least a majority of the then outstanding shares of Preferred Stock, voting together as a single class; provided however, that if the Preferred Stock is converted in connection with an IPO and the offering price to the public in the IPO (the "Public Offering Price") is less than 1.15 times the Conversion Price of the Series G-1 Preferred Stock in effect immediately prior to the IPO, then the Conversion Price for the Series G-1 Preferred Stock shall be adjusted such that, upon the closing of the IPO, each share of Series G-1 Preferred Stock will convert into that number of shares of Common Stock equal to the sum of (a) the number of shares of Common Stock issuable upon conversion of such share of Series G-1 Preferred Stock immediately prior to the IPO (the "Pre-IPO Shares") and (b) an additional number of shares of Common Stock determined by multiplying the Pre-IPO Shares by the quotient of (x) the difference between 1.15 times the Conversion Price of the Series G-1 Preferred Stock immediately prior to the IPO and the Public Offering Price, divided by (y) the Public Offering Price. For purposes of this Section C of Article IV, "Qualified IPO" shall mean any public offering prior to or in connection with which all shares of Preferred Stock are converted into shares of Common Stock.

(c) **Mechanics of Conversion**. Before any holder of Preferred Stock shall be entitled to convert such Preferred Stock into shares of Common Stock, the holder shall surrender the certificate or certificates therefor, duly endorsed, at the office of the Corporation or of any transfer agent for such series of Preferred Stock, and shall give written notice to the Corporation at its principal corporate office, of the election to convert the same and shall state therein the name or names in which the certificate or certificates for shares of Common Stock are to be issued. The Corporation shall, as soon as practicable thereafter, issue and deliver at such office to such holder of Preferred Stock, or to the nominee or nominees of such holder, a certificate or certificates for the number of shares of Common Stock to which such holder shall be entitled as aforesaid. Such conversion shall be deemed to have been made immediately prior to the close of business on the date of such surrender of the shares of such series of Preferred Stock to be converted, and the person or persons entitled to receive the shares of Common Stock issuable upon such conversion shall be treated for all purposes as the record holder or holders of such shares of Common Stock as of such date. If the conversion is in connection with an underwritten public offering of securities registered pursuant to the Securities Act, the conversion may, at the option of any holder tendering such Preferred Stock for conversion, be conditioned upon the closing with the underwriters of the sale of securities pursuant to such offering, in which event any persons entitled to receive Common Stock upon conversion of such Preferred Stock shall not be deemed to have converted such Preferred Stock until immediately prior to the closing of such sale of securities.

(d) **Conversion Price Adjustments of Preferred Stock for Certain Dilutive Issuances, Splits and Combinations**. The Conversion Price of the Preferred Stock shall be subject to adjustment from time to time as follows:

(i) **Issuance of Additional Stock below Purchase Price.** If the Corporation should issue, at any time after the Effective Time, any Additional Stock (as defined below) without consideration or for a consideration per share less than the Conversion Price for such series in effect immediately prior to the issuance of such Additional Stock, the Conversion Price for such series in effect immediately prior to each such issuance shall automatically be adjusted as set forth in this Section 4(d)(i), unless otherwise provided in this Section 4(d)(i).

(A) **Adjustment Formula**. Whenever the Conversion Price is adjusted pursuant to this Section (4)(d)(i), the new Conversion Price shall be determined by multiplying the Conversion Price then in effect by a fraction, (x) the numerator of which shall be the number of shares of Common Stock outstanding immediately prior to such issuance (the "Outstanding Common") plus the number of shares of Common Stock that the aggregate consideration received by the Corporation for such issuance (as determined pursuant to Section 4(d)(i)(D) and, if applicable, Section 4(d)(i)(E)) would purchase at such Conversion Price then in effect; and (y) the denominator of which shall be the number of shares of Outstanding Common plus the number of shares of such Additional Stock. For purposes of the foregoing calculation, the term "Outstanding Common" shall include shares of Common Stock deemed issued pursuant to Section 4(d)(i)(E) below.

(B) **Definition of "Additional Stock".** For purposes of this Section 4(d)(i), "Additional Stock" shall mean any shares of Common Stock issued (or deemed to have been issued pursuant to Section 4(d)(i)(E)) by the Corporation after the Effective Time) other than:

(1) Common Stock issued pursuant to stock dividends, stock splits, recapitalizations or similar transactions, as described in Section 4(d)(ii) hereof;

(2) Shares of Common Stock issued or issuable to employees, consultants or directors of the Corporation directly or pursuant to a stock option plan, restricted stock plan or other similar plan or agreement, which issuance and plan or agreement are approved by the Board of Directors of the Corporation;

(3) Capital stock, or options or warrants to purchase capital stock, issued to financial institutions or lessors in connection with commercial credit arrangements, equipment financings, commercial property lease transactions or similar transactions, the terms of which issuances and transactions are approved by the Board of Directors of the Corporation;

(4) Securities issued in connection with bona fide acquisitions of other corporations or entities pursuant to a merger, consolidation, purchase of assets, reorganization or similar transactions in which the Corporation acquires all or substantially all of the assets of such corporation or entity or 50% or more of the equity ownership in such corporation or entity, the terms of which issuance and transaction are approved by the Board of Directors of the Corporation;

(5) Shares of Common Stock issued or issuable upon conversion of the Preferred Stock;

(6) Shares of Common Stock issued or issuable in a Qualified IPO;

(7) Capital stock issued or issuable to an entity as a component of any corporate strategic relationship with such entity for the purpose of (A) joint venture, technology licensing or development activities, (B) distribution, supply or manufacture of the Corporation's products or services or (C) any other arrangements involving corporate partners that are primarily for purposes other than raising capital, the terms of which issuance to and business relationship with such entity are approved by the Board of Directors of the Corporation;

(8) Shares of Common Stock or Preferred Stock issued or issuable upon exercise of warrants or options outstanding as of the Effective Time; and

(9) Shares of Common Stock issued or issuable in connection with any transaction where the securities so issued are excepted from the definition "Additional Stock" by the affirmative vote of (A) the holders of at least a majority of the Preferred Stock and (B) a majority of the Preferred Directors.

(C) **No Fractional Adjustments**. No adjustment of the Conversion Price for the Preferred Stock shall be made in an amount less than one cent per share, provided that any adjustments which are not required to be made by reason of this sentence shall be carried forward and shall be either taken into account in any subsequent adjustment made prior to three years from the date of the event giving rise to the adjustment being carried forward, or shall be made at the end of three years from the date of the event giving rise to the adjustment being carried forward.

(D) **Determination of Consideration**. In the case of the issuance of Common Stock for cash, the consideration shall be deemed to be the amount of cash paid therefor before deducting any reasonable discounts, commissions or other expenses allowed, paid or incurred by the Corporation for any underwriting or otherwise in connection with the issuance and sale thereof. In the case of the issuance of the Common Stock for a consideration in whole or in part other than cash, the consideration other than cash shall be deemed to be the fair value thereof as determined in good faith by the Board of Directors irrespective of any accounting treatment.

(E) **Deemed Issuances of Common Stock**. In the case of the issuance or sale (whether before, on or after the Effective Time) of securities or rights convertible into, or entitling the holder thereof to receive directly or indirectly, additional shares of Common Stock (the "Common Stock Equivalents"), the following provisions shall apply for all purposes of this Section 4(d)(i):

(1) The aggregate maximum number of shares of Common Stock deliverable upon conversion, exchange or exercise (assuming the satisfaction of any conditions to convertibility, exchangeability or exercisability, including, without limitation, the passage of time, but without taking into account potential antidilution adjustments) of any Common Stock Equivalents and subsequent conversion, exchange or exercise thereof shall be deemed to have been issued at the time such securities were issued or sold or such Common Stock Equivalents were issued or sold and for a consideration equal to the consideration, if any, received by the Corporation for any such securities and related Common Stock Equivalents (excluding any cash received on account of accrued interest or accrued dividends), plus the minimum additional consideration, if any, to be received by the Corporation (without taking into account potential antidilution adjustments) upon the conversion, exchange or exercise of any Common Stock Equivalents (the consideration in each case to be determined in the manner provided in Section 4(d)(i)(D)).

(2) In the event of any change in the number of shares of Common Stock deliverable or in the consideration payable to the Corporation upon conversion, exchange or exercise of any Common Stock Equivalents including, but not limited to, a change resulting from the antidilution provisions thereof, the Conversion Price of the Preferred Stock, to the extent in any way affected by or computed using such Common Stock Equivalents, shall be recomputed to reflect such change, but no further adjustment shall be made for the actual issuance of Common Stock or any payment of such consideration upon the conversion, exchange or exercise of such Common Stock Equivalents.

(3) Upon the termination or expiration of the convertibility, exchangeability or exercisability of any Common Stock Equivalents, the Conversion Price of the Preferred Stock, to the extent in any way affected by or computed using such Common Stock Equivalents, shall be recomputed to reflect the issuance of only the number of shares of Common Stock (and Common Stock Equivalents that remain convertible, exchangeable or exercisable) actually issued upon the conversion, exchange or exercise of such Common Stock Equivalents.

(4) The number of shares of Common Stock deemed issued and the consideration deemed paid therefor pursuant to Section 4(d)(i)(E)(1) shall be appropriately adjusted to reflect any change, termination or expiration of the type described in either Section 4(d)(i)(E)(2) or 4(d)(i)(E)(3).

(F) **No Increased Conversion Price**. Notwithstanding any other provisions of this Section (4)(d)(i), except to the limited extent provided for in Sections 4(d)(i)(E)(2) and 4(d)(i)(E)(3), no adjustment of the Conversion Price pursuant to this Section 4(d)(i) shall have the effect of increasing the Conversion Price above the Conversion Price in effect immediately prior to such adjustment.

(ii) **Stock Splits and Dividends**. In the event the Corporation should at any time after the Effective Time fix a record date for the effectuation of a split or subdivision of the outstanding shares of Common Stock or the determination of holders of Common Stock entitled to receive a dividend or other distribution payable in additional shares of

Common Stock or Common Stock Equivalents without payment of any consideration by such holder for the additional shares of Common Stock or the Common Stock Equivalents (including the additional shares of Common Stock issuable upon conversion or exercise thereof), then, as of such record date (or the date of such dividend distribution, split or subdivision if no record date is fixed), the Conversion Price of the Preferred Stock shall be appropriately decreased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be increased in proportion to such increase of the aggregate of shares of Common Stock outstanding and those issuable with respect to such Common Stock Equivalents with the number of shares issuable with respect to Common Stock Equivalents determined from time to time in the manner provided for deemed issuances in Section 4(d)(i)(E).

(iii) **Reverse Stock Splits**. If the number of shares of Common Stock outstanding at any time after the Effective Time is decreased by a combination of the outstanding shares of Common Stock, then, following the record date of such combination, the Conversion Price for the Preferred Stock shall be appropriately increased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be decreased in proportion to such decrease in outstanding shares.

(e) **Other Distributions**. In the event the Corporation shall declare a distribution payable in securities of other persons, evidences of indebtedness issued by the Corporation or other persons, assets (excluding cash dividends) or options or rights not referred to in Section 4(d)(ii), then, in each such case for the purpose of this Section 4(e), the holders of Preferred Stock shall be entitled to a proportionate share of any such distribution as though they were the holders of the number of shares of Common Stock of the Corporation into which their shares of Preferred Stock are convertible as of the record date fixed for the determination of the holders of Common Stock of the Corporation entitled to receive such distribution.

(f) **Recapitalizations**. If at any time or from time to time there shall be a recapitalization of the Common Stock (other than a subdivision, combination or merger or sale of assets transaction provided for elsewhere in this Section 4 or in Section 2) provision shall be made so that the holders of the Preferred Stock shall thereafter be entitled to receive upon conversion of such Preferred Stock the number of shares of stock or other securities or property of the Corporation or otherwise, to which a holder of Common Stock deliverable upon conversion would have been entitled on such recapitalization. In any such case, appropriate adjustment shall be made in the application of the provisions of this Section 4 with respect to the rights of the holders of such Preferred Stock after the recapitalization to the end that the provisions of this Section 4 (including adjustment of the Conversion Price then in effect and the number of shares purchasable upon conversion of such Preferred Stock) shall be applicable after that event and be as nearly equivalent as practicable.

(g) **No Impairment**. The Corporation will not, by amendment of this Restated Certificate (except in accordance with applicable law) or through any reorganization, recapitalization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms to be observed or performed hereunder by the Corporation, but will at all times in good faith assist in the carrying out of all the provisions of this Section 4 and in the taking of all such action as may be necessary or appropriate in order to protect the conversion rights of the holders of Preferred Stock against impairment. This provision shall not restrict the Corporation's right to amend this Restated Certificate with the requisite shareholder consent.

(h) **No Fractional Shares and Certificate as to Adjustments**.

(i) No fractional shares shall be issued upon the conversion of any share or shares of Preferred Stock. In lieu of fractional shares, the Corporation will pay cash in an amount equal to the fair value of such fractional shares, based on the fair market value of the shares of Common Stock, as determined in good faith by the Board of Directors, as of the time when those who would otherwise be entitled to receive such fractional shares is determined. The number of shares issuable upon such conversion shall be determined on the basis of the total number of shares of Preferred Stock the holder is at the time converting into Common Stock and the number of shares of Common Stock issuable upon such aggregate conversion.

(ii) Upon the occurrence of each adjustment or readjustment of the Conversion Price of the Preferred Stock pursuant to this Section 4, the Corporation, at its expense, shall promptly compute such adjustment or readjustment in accordance with the terms hereof and prepare and furnish to each holder of such Preferred Stock a certificate setting forth such adjustment or readjustment and showing in detail the facts upon which such adjustment or readjustment is based. The Corporation shall, upon the written request at any time of any holder of Preferred Stock, furnish or cause to be furnished to such holder a like certificate setting forth (A) such adjustment and readjustment, (B) the Conversion Price for the Preferred Stock at the time in effect, and (C) the number of shares of Common Stock and the amount, if any, of other property which at the time would be received upon the conversion of a share of the Preferred Stock.

(i) **Notices of Record Date**. In the event of any taking by the Corporation of a record of the holders of any class of securities for the purpose of determining the holders thereof who are entitled to receive any dividend (other than a cash dividend) or other distribution, any right to subscribe for, purchase or otherwise acquire any shares of stock of any class or any other securities or property, or to receive any other right, the Corporation shall mail to each holder of Preferred Stock, at least 20 days prior to the date specified therein, a notice specifying the date on which any such record is to be taken for the purpose of such dividend, distribution or right, and the amount and character of such dividend, distribution or right.

(j) **Reservation of Stock Issuable Upon Conversion**. The Corporation shall at all times reserve and keep available out of its authorized but unissued shares of Common Stock, solely for the purpose of effecting the conversion of the shares of the Preferred Stock, such number of its shares of Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding shares of such series of Preferred Stock; and if at any time the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of such series of Preferred Stock, in addition to such other remedies as shall be available to the holder of such Preferred Stock, the Corporation will take such corporate action as may, in the opinion of its counsel, be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purposes, including, without limitation, engaging in best efforts to obtain the requisite shareholder approval of any necessary amendment to this Restated Certificate.

(k) **Notices**. Any notice required by the provisions of this Section 4 to be given to the holders of shares of Preferred Stock shall be deemed given if deposited in the United States mail, postage prepaid, and addressed to each holder of record at his address appearing on the books of the Corporation.

5. **Voting Rights**. Except as expressly provided by this Restated Certificate or as provided by law, the holders of Preferred Stock shall have the same voting rights as the holders of Common Stock and shall be entitled to notice of any stockholders' meeting in accordance with the Bylaws of the Corporation, and the holders of Common Stock and the Preferred Stock shall vote together as a single class on all matters. Each holder of Common Stock shall be entitled to one vote for each share of Common Stock held, and each holder of Preferred Stock shall be entitled to the number of votes equal to the number of shares of Common Stock into which such shares of Preferred Stock could be converted. Fractional votes shall not, however, be permitted and any fractional voting rights available on an as-converted basis (after aggregating all shares into which shares of Preferred Stock held by each holder could be converted) shall be rounded to the nearest whole number (with one-half being rounded upward).

6. **Election of Directors.**

(a) For so long as there are outstanding at least 50,000 shares of Series A-1 Preferred Stock (as adjusted for stock splits, reclassifications or other similar transactions), the holders of Series A-1 Preferred Stock, voting as a separate class, shall be entitled to elect one (1) member (the "Series A-1 Director") of the Corporation's Board of Directors at each meeting or pursuant to each consent of the Corporation's stockholders for the election of directors.

(b) For so long as there are outstanding at least 50,000 shares of Series B-1 Preferred Stock (as adjusted for stock splits, reclassifications or other similar transactions), the holders of Series B-1 Preferred Stock, voting as a separate class, shall be entitled to elect two (2) members (the "Series B-1 Directors") of the Corporation's Board of Directors at each meeting or pursuant to each consent of the Corporation's stockholders for the election of directors.

(c) For so long as there are outstanding at least 50,000 shares of Series C-1 Preferred Stock (as adjusted for stock splits, reclassifications or other similar transactions), the holders of Series C-1 Preferred Stock, voting as a separate class, shall be entitled to elect two (2) members (the "Series C-1 Directors") of the Corporation's Board of Directors at each meeting or pursuant to each consent of the Corporation's stockholders for the election of directors.

(d) For so long as there are outstanding at least 50,000 shares of Series G-1 Preferred Stock (as adjusted for stock splits, reclassifications or other similar transactions), the holders of Series G-1 Preferred Stock, voting as a separate class, shall be entitled to elect one (1) member (the "Series G-1 Director", and together with the Series A-1 Director, the Series B-1 Directors and the Series C-1 Directors, the "Preferred Directors") of the Corporation's Board of Directors at each meeting or pursuant to each consent of the Corporation's stockholders for the election of directors.

(e) The holders of Common Stock and Preferred Stock, voting together as a single class on an as-if-converted basis, shall be entitled to elect all remaining members of the Corporation's Board of Directors at each meeting or pursuant to each consent of the Corporation's stockholders for the election of directors.

7. **Protective Provisions**.

(a) So long as at least 50,000 shares of Preferred Stock are outstanding (as adjusted for stock splits, stock dividends, reclassifications or the like), the Corporation shall not (by amendment, merger, consolidation or otherwise) without first obtaining the approval (by vote or written consent, as provided by law) of the holders of at least a majority of the then outstanding shares of Preferred Stock, voting together as a single class:

(i) effect any liquidation, dissolution or winding up of the Corporation or effect a Liquidation Transaction;

(ii) amend, alter, repeal, waive or change the rights, preferences, privileges or powers of the shares of Preferred Stock so as to affect materially and adversely the shares of such series;

(iii) increase or decrease (other than by conversion) the total number of authorized number of any class or series of stock;

(iv) redeem, purchase or otherwise acquire (or pay into or set funds aside for a sinking fund for such purpose) any share or shares of Preferred Stock or Common Stock; provided, however, that this restriction shall not apply to the repurchase of shares of Common Stock from employees, officers, directors, consultants or other persons performing services for the Corporation or any subsidiary pursuant to agreements under which the Corporation has the option to repurchase such shares at no greater than cost upon the occurrence of certain events, such as the termination of employment, or through the exercise of any right of first refusal;

(v) amend this Restated Certificate or the Corporation's Bylaws;

(vi) authorize, create (by reclassification, merger or otherwise) or issue, or obligate itself to issue, any other equity security, including any security (other than Series A-1 Preferred Stock, Series B-1 Preferred Stock, Series C-1 Preferred Stock, Series D-1 Preferred Stock, Series E-1 Preferred Stock, Series F-1 Preferred Stock or Series G-1 Preferred Stock) convertible into or exercisable for any equity security, having a preference over, or being on a parity with, the Preferred Stock with respect to voting, dividends, conversion, redemption or upon liquidation;

(vii) declare or pay dividends on or make any distribution with respect to any shares of Common Stock (other than a dividend payable solely in shares of Common Stock);

(viii) change the number of authorized directors of the Corporation to less than seven (7) or more than ten (10) directors, or decrease the number of authorized directors of the Corporation to below the number of directors then in office; and

(ix) amend the MIP to change the total amount of the Carve Out Amount (as such term is defined in the MIP) or to change the order or preference in which the MIP participates in the proceeds otherwise distributable to the holders of Preferred Stock in accordance with Section 2, or create or enter into any new or similar management incentive plan.

(b) So long as at least 50,000 shares of Series A-1 Preferred Stock are outstanding (as adjusted for stock splits, stock dividends, reclassifications or the like), the Corporation shall not (by amendment, merger, consolidation or otherwise) without first obtaining the approval (by vote or written consent, as provided by law) of the holders of at least a majority of the outstanding shares of Series A-1 Preferred Stock: (i) amend, alter or repeal any provision of this Restated Certificate or the Corporation's Bylaws if it would adversely alter the rights, preferences, privileges or powers of or restrictions on the Series A-1 Preferred Stock or (ii) increase or decrease the authorized number of shares of Series A-1 Preferred Stock.

(c) So long as at least 50,000 shares of Series B-1 Preferred Stock are outstanding (as adjusted for stock splits, stock dividends, reclassifications or the like), the Corporation shall not (by amendment, merger, consolidation or otherwise) without first obtaining the approval (by vote or written consent, as provided by law) of the holders of at least a majority of the outstanding shares of Series B-1 Preferred Stock: (i) amend, alter or repeal any provision of this Restated Certificate or the Corporation's Bylaws if it would adversely alter the rights, preferences, privileges or powers of or restrictions on the Series B-1 Preferred Stock; or (ii) increase or decrease the authorized number of shares of Series B-1 Preferred Stock.

(d) So long as at least 50,000 shares of Series C-1 Preferred Stock are outstanding (as adjusted for stock splits, stock dividends, reclassifications or the like), the Corporation shall not (by amendment, merger, consolidation or otherwise) without first obtaining the approval (by vote or written consent, as provided by law) of the holders of at least a majority of the outstanding shares of Series C-1 Preferred Stock: (i) amend, alter or repeal any provision of this Restated Certificate or the Corporation's Bylaws if it would adversely alter the rights, preferences, privileges or powers of or restrictions on the Series C-1 Preferred Stock; (ii) increase or decrease the authorized number of shares of Series C-1 Preferred Stock; or (iii) alter or change the economic terms of any series of Preferred Stock (including, but not limited to, those terms relating to the conversion price, dividend rate, or liquidation preferences) so as to improve such economic terms of such series of Preferred Stock unless comparable alteration or change is made to the comparable economic terms of the Series C-1 Preferred Stock to the extent relevant.

(e) So long as at least 50,000 shares of Series D-1 Preferred Stock are outstanding (as adjusted for stock splits, stock dividends, reclassifications or the like), the Corporation shall not (by amendment, merger, consolidation or otherwise) without first obtaining the approval (by vote or written consent, as provided by law) of the holders of at least a majority of the outstanding shares of Series D-1 Preferred Stock: (i) amend, alter or repeal any provision of this Restated Certificate or the Corporation’s Bylaws if it would adversely alter the rights, preferences, privileges or powers of or restrictions on the Series D-1 Preferred Stock; (ii) increase or decrease the authorized number of shares of Series D-1 Preferred Stock; or (iii) alter or change the economic terms of any series of Preferred Stock (including, but not limited to, those terms relating to the conversion price, dividend rate, or liquidation preferences) so as to improve such economic terms of such series of Preferred Stock unless comparable alteration or change is made to the comparable economic terms of the Series D-1 Preferred Stock to the extent relevant.

(f) So long as at least 50,000 shares of Series E-1 Preferred Stock are outstanding (as adjusted for stock splits, stock dividends, reclassifications or the like), the Corporation shall not (by amendment, merger, consolidation or otherwise) without first obtaining the approval (by vote or written consent, as provided by law) of the holders of at least 70% of the then outstanding shares of Series E-1 Preferred Stock: (i) amend, alter or repeal any provision of this Restated Certificate or the Corporation’s Bylaws if it would adversely alter the rights, preferences, privileges or powers of or restrictions on the Series E-1 Preferred Stock; (ii) increase or decrease the authorized number of shares of Series E-1 Preferred Stock; or (iii) alter or change the economic terms of any series of Preferred Stock (including, but not limited to, those terms relating to the conversion price, dividend rate, or liquidation preferences) so as to improve such economic terms of such series of Preferred Stock unless comparable alteration or change is made to the comparable economic terms of the Series E-1 Preferred Stock to the extent relevant.

(g) So long as at least 50,000 shares of Series F-1 Preferred Stock are outstanding (as adjusted for stock splits, stock dividends, reclassifications or the like), the Corporation shall not (by amendment, merger, consolidation or otherwise) without first obtaining the approval (by vote or written consent, as provided by law) of the holders of at least a majority of the then outstanding shares of Series F-1 Preferred Stock: (i) amend, alter or repeal any provision of this Restated Certificate or the Corporation’s Bylaws if it would adversely alter the rights, preferences, privileges or powers of or restrictions on the Series F-1 Preferred Stock; (ii) increase or decrease the authorized number of shares of Series F-1 Preferred Stock; (iii) alter or change the economic terms of any series of Preferred Stock (including, but not limited to, those terms relating to the conversion price, dividend rate, or liquidation preferences) so as to improve such economic terms of such series of Preferred Stock unless comparable alteration or change is made to the comparable economic terms of the Series F-1 Preferred Stock to the extent relevant; or (iv) amend the MIP so as to adversely effect the rights of the Series F-1 Preferred Stock in a manner different than any other series of Preferred Stock, or create or enter into any new or similar management incentive plan.

(h) So long as at least 50,000 shares of Series G-1 Preferred Stock are outstanding (as adjusted for stock splits, stock dividends, reclassifications or the like), the Corporation shall not (by amendment, merger, consolidation or otherwise) without first obtaining the approval (by vote or written consent, as provided by law) of the holders of at least a majority of the then outstanding shares of Series G-1 Preferred Stock: (i) amend, alter or repeal any provision of this Restated Certificate or the Corporation's Bylaws if it would adversely alter the rights, preferences, privileges or powers of or restrictions on the Series G-1 Preferred Stock; (ii) increase or decrease the authorized number of shares of Series G-1 Preferred Stock; (iii) alter or change the economic terms of any series of Preferred Stock (including, but not limited to, those terms relating to the conversion price, dividend rate, or liquidation preferences) so as to improve such economic terms of such series of Preferred Stock unless comparable alteration or change is made to the comparable economic terms of the Series G-1 Preferred Stock to the extent relevant; or (iv) amend the MIP so as to adversely effect the rights of the Series G-1 Preferred Stock in a manner different than any other series of Preferred Stock, or create or enter into any new or similar management incentive plan.

8. **Status of Converted Stock**. In the event any shares of Preferred Stock shall be converted pursuant to Section 4 hereof, the shares so converted shall be cancelled and shall not be issuable by the Corporation. This Restated Certificate shall be appropriately amended to effect the corresponding reduction in the Corporation's authorized capital stock.

(D) **Common Stock.**

1. **Dividend Rights**. Subject to the prior rights of holders of all classes of stock at the time outstanding having prior rights as to dividends, the holders of the Common Stock shall be entitled to receive, when and as declared by the Board of Directors, out of any assets of the Corporation legally available therefor, such dividends as may be declared from time to time by the Board of Directors.

2. **Liquidation Rights**. Upon the liquidation, dissolution or winding up of the Corporation, or the occurrence of a Liquidation Transaction, the assets of the Corporation shall be distributed as provided in Section 2 of Section C of Article IV.

3. **Redemption**. The Common Stock is not redeemable.

4. **Voting Rights**. Each holder of Common Stock shall have the right to one vote per share of Common Stock, and shall be entitled to notice of any stockholders' meeting in accordance with the Bylaws of the Corporation, and shall be entitled to vote upon such matters and in such manner as may be provided by law.

ARTICLE V

The Board of Directors of the Corporation is expressly authorized to make, alter or repeal Bylaws of the Corporation.

ARTICLE VI

Elections of directors need not be by written ballot unless otherwise provided in the Bylaws of the Corporation.

ARTICLE VII

(A) To the fullest extent permitted by the Delaware General Corporation Law, as the same exists or as may hereafter be amended, a director of the Corporation shall not be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director.

(B) The Corporation shall indemnify to the fullest extent permitted by law any person made or threatened to be made a party to an action or proceeding, whether criminal, civil, administrative or investigative, by reason of the fact that he, his testator or intestate is or was a director or officer of the Corporation or any predecessor of the Corporation, or serves or served at any other enterprise as a director or officer at the request of the Corporation or any predecessor to the Corporation.

(C) If a Covered Person (as defined below) (1) acquires knowledge of a Corporate Opportunity (as defined below) or (2) is then otherwise pursuing a Corporate Opportunity, unless such Corporate Opportunity is presented to, or acquired, created or developed by, or otherwise comes into the possession of, a Covered Person expressly and solely in such Covered Person's capacity as a director of the Corporation or pursuant to contractual rights with the Corporation to observe the proceedings of the Board of Directors:

(a) the Corporation shall have no expectation that such Corporate Opportunity will be offered to it, and

(b) the Covered Persons (i) shall have no duty to communicate or present such Corporate Opportunity to the Corporation, shall have the right to hold such Corporate Opportunity for the Covered Person's (and its officers', directors', agents', stockholders', Affiliates' or subsidiaries') own account, or to recommend, assign or otherwise transfer such Corporate Opportunity to persons other than the Corporation, and (ii) shall not be liable to the Corporation or its stockholders or creditors for breach of fiduciary duty as a director or stockholder of the Corporation by reason of the fact that the Covered Persons pursued or acquired such Corporate Opportunity for itself, directed, sold, assigned or otherwise transferred such Corporate Opportunity to another person, or did not communicate information regarding such Corporate Opportunity to the Corporation,

it being understood that the foregoing shall not constitute a waiver of any right the Corporation may have as a result of a breach of a contract between the Corporation and any Covered Person.

For the purposes of this Section (C):

(a) "Affiliate" of any Person (as defined below) shall mean any other Person that, directly or indirectly, controls, is under common control with or is controlled by that Person; provided, however, that neither the term "Affiliate" nor the waivers and protections contained in this Section (C), shall include or extend to any Person who serves as an officer, or employee of the Corporation. For purposes of this definition, "control" (including, with its correlative meanings, the terms "controlled by" and "under common control with"), as used with respect to any Person, shall mean the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of such Person, whether through the ownership of voting securities or by contract or otherwise.

(b) "Corporate Opportunity" shall mean any matter, transaction, interest, investment, development or business opportunity or prospective economic or competitive advantage in which the Corporation could have an interest or expectancy.

(c) "Covered Person" shall mean (A) any director of the Corporation who is not an employee of the Corporation or any of its subsidiaries or (B) any holder of shares of Preferred Stock or any Affiliate, parent, subsidiary, partner, member, director, stockholder, employee or agent of any agent of any such holder or holder's Affiliate, other than someone who is an employee of the Corporation or any of its subsidiaries.

(d) "Person" shall mean an individual, corporation, partnership, limited liability company, trust, unincorporated organization, or other legal entity.

Without limiting the foregoing renunciation, the Corporation (1) acknowledges that the Covered Persons are in the business of making investments in, and have or may have investments in, other businesses similar to and that may compete with the Corporation's businesses ("Competing Businesses"), and (2) agrees that the Covered Persons shall have the unfettered right to make investments in or have relationships with Competing Businesses independent of their investments in the Corporation; provided that each Covered Person agrees to keep in confidence and prevent the use or disclosure to any other person or entity of the confidential information of the Corporation.

Notwithstanding anything in this Restated Certificate to the contrary, this Section (C) may not be amended, waived or terminated without the approval by vote or written consent of (i) the holders of at least a majority of the Series F-1 Preferred Stock and (ii) the holders of at least a majority of the Series G-1 Preferred Stock, voting separately.

(D) Unless the Corporation consents in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware (or, if and only if the Court of Chancery of the State of Delaware lacks subject matter jurisdiction, any state court located within the State of Delaware or, if and only if all such state courts lack subject matter jurisdiction, the federal district court for the District of Delaware) and any appellate court therefrom will be the exclusive forum for the following types of actions or proceedings under Delaware statutory or common law: (i) any derivative action, suit or proceeding brought on behalf of the Corporation, (ii) any action, suit or proceeding asserting a claim of breach of a fiduciary duty owed by any current or former director, officer, or other employee of the Corporation to the Corporation or the Corporation's stockholders, (iii) any action, suit or proceeding asserting a claim against the Corporation or any current or former director, officer, or other employee of the Corporation arising out of or pursuant to, or seeking to enforce any right, obligation or remedy under, or to interpret, apply, enforce, or determine the validity of, any provision of the Delaware General Corporation Law, the certificate of incorporation of the Corporation, or the Bylaws of the Corporation, (iv) any action, suit, or proceeding as to which the Delaware General Corporation Law confers jurisdiction on the Court of Chancery of the State of Delaware, and (v) any action, suit or proceeding asserting a claim against the Corporation or any current or former director, officer, or other employee of the Corporation governed by the internal-affairs doctrine, in all cases subject to the court having personal jurisdiction over the indispensable parties named as defendants. This Article VII(D) shall not apply to actions, suits or proceedings brought to enforce a duty or liability created by the Securities Exchange Act of 1934, as amended, or any other claim for which the federal courts have exclusive jurisdiction.

(E) Unless the Corporation consents in writing to the selection of an alternative forum, to the fullest extent permitted by law, the federal district courts of the United States of America shall be the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act.

(F) Any person or entity holding, owning or otherwise acquiring any interest in shares of capital stock of the Corporation shall be deemed to have notice of and to have consented to the provisions of this Article VII.

(G) Neither any amendment nor repeal of this Article VII, nor the adoption of any provision of the Corporation's Certificate of Incorporation inconsistent with this Article VII, shall eliminate or reduce the effect of this Article VII in respect of any matter occurring, or any action or proceeding accruing or arising or that, but for this Article VII, would accrue or arise, prior to such amendment, repeal or adoption of an inconsistent provision.

* * *

The foregoing Amended and Restated Certificate of Incorporation has been duly adopted by this Corporation's Board of Directors and stockholders in accordance with the applicable provisions of Sections 228, 242 and 245 of the Delaware General Corporation Law.

Executed this 22nd day of September, 2020.

/s/ Glendon E. French

Glendon E. French, President

AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF PULMONX CORPORATION

The undersigned, Glendon E. French, hereby certifies that:

ONE: He is the duly elected and acting President of Pulmonx Corporation, a Delaware corporation.

TWO: The Certificate of Incorporation of this corporation was originally filed with the Secretary of State of Delaware on December 4, 2013 under the name of Pulmonx Corporation.

THREE: The Certificate of Incorporation of this company is hereby amended and restated to read as follows:

I.

The name of this company is Pulmonx Corporation (the "***Company***").

II.

The address of the Company's registered office in the State of Delaware is: Corporation Trust Center, 1209 Orange Street, Wilmington, New Castle County, Delaware 19801. The name of the Company's registered agent at such address is: The Corporation Trust Company.

III.

The purpose of the Company is to engage in any lawful act or activity for which corporations may be organized under the Delaware General Corporation Law ("***DGCL***").

IV.

A. This Company is authorized to issue two classes of stock to be designated, respectively, "***Common Stock***" and "***Preferred Stock***." The total number of shares which the Company is authorized to issue is 210,000,000 shares. 200,000,000 shares shall be Common Stock, having a par value per share of $0.001. 10,000,000 shares shall be Preferred Stock, having a par value per share of $0.001.

B. The Preferred Stock may be issued from time to time in one or more series. The Board of Directors of the Company (the "***Board of Directors***") is hereby expressly authorized to provide for the issue of all or any of the shares of the Preferred Stock in one or more series, and to fix the number of shares and to determine or alter for each such series, such voting powers, full or limited, or no voting powers, and such designation, preferences, and relative, participating, optional, or other rights and such qualifications, limitations, or restrictions thereof, as shall be stated and expressed in the resolution or resolutions adopted by the Board of Directors providing for the issuance of such shares and as may be permitted by the DGCL. The Board of Directors is also expressly authorized to increase or decrease the number of shares of any series subsequent to the issuance of shares of that series, but not below the number of shares of such series then outstanding. In case the number of shares of any series shall be decreased in accordance with the foregoing sentence, the shares constituting such decrease shall resume the status that they had prior to the adoption of the resolution originally fixing the number of shares of such series. The number of authorized shares of Preferred Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by the affirmative vote of the holders of a majority of the voting power of the stock of the Company entitled to vote thereon, without a separate vote of the holders of the Preferred Stock, or of any series thereof, unless a vote of any such holders is required pursuant to the terms of any certificate of designation filed with respect to any series of Preferred Stock.

C. Each outstanding share of Common Stock shall entitle the holder thereof to one vote on each matter properly submitted to the stockholders of the Company for their vote; *provided, however*, that, except as otherwise required by law, holders of Common Stock shall not be entitled to vote on any amendment to this Amended and Restated Certificate of Incorporation (including any certificate of designation filed with respect to any series of Preferred Stock) that relates solely to the terms of one or more outstanding series of Preferred Stock if the holders of such affected series are entitled, either separately or together as a class with the holders of one or more other such series, to vote thereon by law or pursuant to this Amended and Restated Certificate of Incorporation (including any certificate of designation filed with respect to any series of Preferred Stock).

V.

For the management of the business and for the conduct of the affairs of the Company, and in further definition, limitation and regulation of the powers of the Company, of its directors and of its stockholders or any class thereof, as the case may be, it is further provided that:

A. MANAGEMENT OF BUSINESS. The management of the business and the conduct of the affairs of the Company shall be vested in its Board of Directors. The number of directors which shall constitute the Board of Directors shall be fixed exclusively by resolutions adopted by a majority of the authorized number of directors constituting the Board of Directors.

B. BOARD OF DIRECTORS. Subject to the rights of the holders of any series of Preferred Stock to elect additional directors under specified circumstances, following the closing of the initial public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended (the "***1933 Act***"), covering the offer and sale of Common Stock to the public (the "***Initial Public Offering***"), the directors shall be divided into three classes designated as Class I, Class II and Class III, respectively. The Board of Directors is authorized to assign members of the Board of Directors already in office to such classes at the time the classification becomes effective. At the first annual meeting of stockholders following the closing of the Initial Public Offering, the term of office of the Class I directors shall expire and Class I directors shall be elected for a full term of three years. At the second annual meeting of stockholders following the closing of the Initial Public Offering, the term of office of the Class II directors shall expire and Class II directors shall be elected for a full term of three years. At the third annual meeting of stockholders following the closing of the Initial Public Offering, the term of office of the

Class III directors shall expire and Class III directors shall be elected for a full term of three years. At each succeeding annual meeting of stockholders, directors shall be elected for a full term of three years to succeed the directors of the class whose terms expire at such annual meeting.

Notwithstanding the foregoing provisions of this section, each director shall serve until his or her successor is duly elected and qualified or until his or her earlier death, resignation or removal. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

C. REMOVAL OF DIRECTORS. Subject to any limitations imposed by applicable law, removal of directors shall be as provided in Section 141(k) of the DGCL.

D. VACANCIES. Subject to any limitations imposed by applicable law and subject to the rights of the holders of any series of Preferred Stock, any vacancies on the Board of Directors resulting from death, resignation, disqualification, removal or other causes and any newly created directorships resulting from any increase in the number of directors, shall, unless the Board of Directors determines by resolution that any such vacancies or newly created directorships shall be filled by the stockholders and except as otherwise provided by applicable law, be filled only by the affirmative vote of a majority of the directors then in office, even though less than a quorum of the Board of Directors, and not by the stockholders. Any director elected in accordance with the preceding sentence shall hold office for the remainder of the full term of the director for which the vacancy was created or occurred and until such director's successor shall have been elected and qualified.

E. BYLAWS AMENDMENTS.

1. The Board of Directors is expressly empowered to adopt, amend or repeal the Bylaws of the Company. Any adoption, amendment or repeal of the Bylaws of the Company by the Board of Directors shall require the approval of a majority of the authorized number of directors. The stockholders shall also have power to adopt, amend or repeal the Bylaws of the Company; *provided, however,* that, in addition to any vote of the holders of any class or series of stock of the Company required by law or by this Amended and Restated Certificate of Incorporation, such action by stockholders shall require the affirmative vote of the holders of at least sixty-six and two-thirds percent (66 2/3%) of the voting power of all of the then-outstanding shares of the capital stock of the Company entitled to vote generally in the election of directors, voting together as a single class.

2. The directors of the Company need not be elected by written ballot unless the Bylaws so provide.

3. No action shall be taken by the stockholders of the Company except at an annual or special meeting of stockholders called in accordance with the Bylaws, and no action shall be taken by the stockholders by written consent or electronic transmission.

4. Advance notice of stockholder nominations for the election of directors and of business to be brought by stockholders before any meeting of the stockholders of the Company shall be given in the manner provided in the Bylaws of the Company.

VI.

A. The liability of the directors for monetary damages shall be eliminated to the fullest extent under applicable law.

B. To the fullest extent permitted by applicable law, the Company is authorized to provide indemnification of (and advancement of expenses to) directors, officers and agents of the Company (and any other persons to which applicable law permits the Company to provide indemnification) through Bylaw provisions, agreements with such agents or other persons, vote of stockholders or disinterested directors or otherwise in excess of the indemnification and advancement otherwise permitted by such applicable law. If applicable law is amended after approval by the stockholders of this Article VI to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director to the Company shall be eliminated or limited to the fullest extent permitted by applicable law as so amended.

C. Any repeal or modification of this Article VI shall only be prospective and shall not affect the rights or protections or increase the liability of any director under this Article VI in effect at the time of the alleged occurrence of any act or omission to act giving rise to liability or indemnification.

VII.

Unless the Company consents in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware (or, if and only if the Court of Chancery of the State of Delaware lacks subject matter jurisdiction, any state court located within the State of Delaware or, if and only if all such state courts lack subject matter jurisdiction, the federal district court for the District of Delaware) and any appellate court therefrom will be the exclusive forum for the following types of actions or proceedings under Delaware statutory or common law: (i) any derivative action, suit or proceeding brought on behalf of the Company, (ii) any action, suit or proceeding asserting a claim of breach of a fiduciary duty owed by any current or former director, officer, or other employee of the Company to the Company or the Company’s stockholders, (iii) any action, suit or proceeding asserting a claim against the Company or any current or former director, officer, or other employee of the Company arising out of or pursuant to, or seeking to enforce any right, obligation or remedy under, or to interpret, apply, or determine the validity of, any provision of the DGCL, the Certificate of Incorporation, or the Bylaws, (iv) any action, suit, or proceeding as to which the DGCL confers jurisdiction on the Court of Chancery of the State of Delaware, and (v) any action, suit or proceeding asserting a claim against the Company or any current or former director, officer, or other employee of the Company governed by the internal-affairs doctrine, in all cases subject to the court having personal jurisdiction over the indispensable parties named as defendants. This Article V(D) shall not apply to actions, suits or proceedings brought to enforce a duty or liability created by the

Securities Exchange Act of 1934, as amended, or any other claim for which the federal courts have exclusive jurisdiction.

Unless the Company consents in writing to the selection of an alternative forum, to the fullest extent permitted by law, the federal district courts of the United States of America shall be the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act.

Any person or entity holding, owning or otherwise acquiring any interest in shares of capital stock of the Company shall be deemed to have notice of and to have consented to the provisions of this Article VII.

VIII.

A. The Company reserves the right to amend, alter, change or repeal any provision contained in this Amended and Restated Certificate of Incorporation, in the manner now or hereafter prescribed by statute, except as provided in paragraph B. of this Article VIII, and all rights conferred upon the stockholders herein are granted subject to this reservation.

B. Notwithstanding any other provisions of this Amended and Restated Certificate of Incorporation or any provision of applicable law which might otherwise permit a lesser vote or no vote, but in addition to any affirmative vote of the holders of any particular class or series of the capital stock of the Company required by law or by this Amended and Restated Certificate of Incorporation or any certificate of designation filed with respect to a series of Preferred Stock, the affirmative vote of the holders of at least sixty-six and two-thirds percent (66-2/3%) of the voting power of all of the then outstanding shares of capital stock of the Company entitled to vote generally in the election of directors, voting together as a single class, shall be required to alter, amend or repeal Articles V, VI, VII and VIII.

* * * *

FOUR: This Amended and Restated Certificate of Incorporation has been duly approved by the Board of Directors of the Company.

FIVE: This Amended and Restated Certificate of Incorporation was approved by the holders of the requisite number of shares of the Company in accordance with Section 228 of the DGCL. This Amended and Restated Certificate of Incorporation has been duly adopted in accordance with the provisions of Sections 242 and 245 of the DGCL by the stockholders of the Company.

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IN WITNESS WHEREOF, Pulmonx Corporation has caused this Amended and Restated Certificate of Incorporation to be signed by its President this ___ day of September, 2020.

PULMONX CORPORATION

____

Glendon E. French
President

AMENDED AND RESTATED BYLAWS

OF

PULMONX CORPORATION
(A DELAWARE CORPORATION)

ARTICLE I

OFFICES

Section 1. Registered Office. The registered office of the corporation in the State of Delaware shall be as set forth in the certificate of incorporation of the corporation (the "***Certificate of Incorporation***").

Section 2. Other Offices. The corporation shall also have and maintain an office or principal place of business at such place as may be fixed by the Board of Directors of the corporation (the "***Board of Directors***"), and may also have offices at such other places, both within and without the State of Delaware, as the Board of Directors may from time to time determine or as may be necessary or convenient to the business of the corporation.

ARTICLE II

CORPORATE SEAL

Section 3. Corporate Seal. The Board of Directors may adopt a corporate seal. If adopted, the corporate seal shall consist of a die bearing the name of the corporation and the inscription, "Corporate Seal-Delaware." Said seal may be used by causing it or a facsimile thereof to be impressed or affixed or reproduced or otherwise.

ARTICLE III

STOCKHOLDERS' MEETINGS

Section 4. Place of Meetings. Meetings of the stockholders of the corporation may be held at such place (if any), either within or without the State of Delaware, as may be determined from time to time by the Board of Directors. The Board of Directors may, in its sole discretion, determine that the meeting shall not be held at any place, but may instead be held solely by means of remote communication as provided under the Delaware General Corporation Law ("***DGCL***"). For the avoidance of doubt, the Board of Directors may, in its sole discretion, determine that a meeting of stockholders of the corporation may be held both in a place and by means of remote communication.

Section 5. Annual Meeting.

(a) The annual meeting of the stockholders of the corporation, for the purpose of election of directors and for such other business as may properly come before it, shall be held at such place, if any, and on such date and at such time as shall be designated from time to time by the Board of Directors and stated in the corporation's notice of meeting of stockholders. Nominations of persons for election to the Board of Directors and proposals of business to be considered by the stockholders may be made at an annual meeting of stockholders: (i) pursuant to the corporation's notice of meeting of stockholders given by or at the direction of the Board of Directors; (ii) brought specifically by or at the direction of the Board of Directors or a duly authorized committee thereof; or (iii) by any stockholder of the corporation who was a stockholder of record or beneficial owner at the time of giving the stockholder's notice provided for in Section 5(b) below, who is entitled to vote at the meeting and who complied with the notice procedures set forth in Section 5. For the avoidance of doubt, clause (iii) above shall be the exclusive means for a stockholder to make nominations and submit other business (other than matters properly included in the corporation's notice of meeting of stockholders and proxy statement under Rule 14a-8 under the Securities Exchange Act of 1934, as amended (the "***1934 Act***"), and the rules and regulations thereunder before an annual meeting of stockholders).

(b) At an annual meeting of the stockholders, only such business shall be conducted as is a proper matter for stockholder action under Delaware law and as shall have been properly brought before the meeting in accordance with Section 5(a) and the procedures below.

(i) For nominations for the election to the Board of Directors to be properly brought before an annual meeting by a stockholder pursuant to clause (iii) of Section 5(a), the stockholder must deliver written notice to the Secretary at the principal executive offices of the corporation on a timely basis as set forth in Section 5(b)(iii) and must update and supplement such written notice on a timely basis as set forth in Section 5(c). Such stockholder's notice shall set forth: (A) as to each nominee such stockholder proposes to nominate at the meeting: (1) the name, age, business address and residence address of such nominee; (2) the principal occupation or employment of such nominee; (3) the class or series and number of shares of each class or series of capital stock of the corporation that are owned beneficially and of record by such nominee; (4) the date or dates on which such shares were acquired and the investment intent of such acquisition; (5) a statement whether such nominee, if elected, intends to tender, promptly following such person's failure to receive the required vote for election or re-election at the next meeting at which such person would face election or re-election, an irrevocable resignation effective upon acceptance of such resignation by the Board of Directors; and (6) such other information concerning such nominee as would be required to be disclosed in a proxy statement soliciting proxies for the election of such nominee as a director in an election contest (even if an election contest is not involved), or that is otherwise required to be disclosed pursuant to Section 14 of the 1934 Act and the rules and regulations promulgated thereunder (including such person's written consent to being named in the corporation's proxy statement and associated proxy card as a nominee of the stockholder and to serving as a director if elected); and (B) the information required by Section 5(b)(iv). The corporation may require any proposed nominee to furnish such other information as it may reasonably require to determine the eligibility of such proposed nominee to serve (i) as an independent director (as such term is used in any applicable stock exchange listing requirements or applicable law) of the corporation or (ii) on any committee or sub-committee of the Board of Directors under any applicable stock exchange listing requirements or applicable law, and that could be material to a reasonable stockholder's understanding of the independence, or lack thereof, of such proposed nominee.

(ii) Other than proposals sought to be included in the corporation's proxy materials pursuant to Rule 14a-8 under the 1934 Act, for business other than nominations for the election to the Board of Directors to be properly brought before an annual meeting by a stockholder pursuant to clause (iii) of Section 5(a), the stockholder must deliver written notice to the Secretary at the principal executive offices of the corporation on a timely basis as set forth in Section 5(b)(iii), and must update and supplement such written notice on a timely basis as set forth in Section 5(c). Such stockholder's notice shall set forth: (A) as to each matter such stockholder proposes to bring before the meeting, a brief description of the business desired to be brought before the meeting, the text of the proposal or business (including the text of any resolutions proposed for consideration and in the event that such business includes a proposal to amend the Bylaws of the corporation (the "***Bylaws***"), the language of the proposed amendment), the reasons for conducting such business at the meeting, and any material interest (including any anticipated benefit of such business to any Proponent (as defined below) other than solely as a result of its ownership of the corporation's capital stock, that is material to any Proponent individually, or to the Proponents in the aggregate) in such business of any Proponent; and (B) the information required by Section 5(b)(iv).

(iii) To be timely, the written notice required by Section 5(b)(i) or 5(b)(ii) must be received by the Secretary at the principal executive offices of the corporation not later than the close of business on the ninetieth (90th) day nor earlier than the close of business on the one hundred twentieth (120th) day prior to the first anniversary of the preceding year's annual meeting (which date shall, for purposes of the corporation's first annual meeting of stockholders after its shares of Common Stock are first publicly traded, be deemed to have occurred on June 1, 2020); *provided, however,* that, subject to the last sentence of this Section 5(b)(iii), in the event that the date of the annual meeting is advanced more than thirty (30) days prior to or delayed by more than thirty (30) days after the anniversary of the preceding year's annual meeting, notice by the stockholder to be timely must be so received (A) not earlier than the close of business on the one hundred twentieth (120th) day prior to such annual meeting and (B) not later than the close of business on the later of the ninetieth (90th) day prior to such annual meeting or, if later than the ninetieth (90th) day prior to such annual meeting, the tenth (10th) day following the day on which public announcement of the date of such meeting is first made. In no event shall an adjournment or a postponement of an annual meeting for which notice has been given, or the public announcement thereof has been made, commence a new time period (or extend any time period) for the giving of a stockholder's notice as described above.

(iv) The written notice required by Section 5(b)(i) or 5(b)(ii) shall also set forth, as of the date of the notice and as to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the nomination or proposal is made (each, a "***Proponent***" and collectively, the "***Proponents***"): (A) the name and address of each Proponent, as they appear on the corporation's books; (B) the class or series and number of shares of each class of capital stock of the corporation that are owned of record and beneficially by each Proponent; (C) a description of any agreement, arrangement or understanding (whether oral or in writing) with respect to such nomination or proposal between or among any Proponent and any of its affiliates or associates, and any others (including their names) acting in concert, or otherwise under the agreement, arrangement or understanding, with any of the foregoing; (D) a representation that the Proponents are holders of record or beneficial owners, as the case may be, of shares of the corporation entitled to vote at the meeting and intend to appear in person or by proxy at the meeting to nominate the person or persons specified in the notice (with respect to a notice under Section 5(b)(i)) or to propose the business that is specified in the notice (with respect to a notice under Section 5(b)(ii)); (E) a representation as to whether the Proponents intend to deliver a proxy statement and form of proxy to holders of a sufficient number of holders of the corporation's voting shares to elect such nominee or nominees (with respect to a notice under Section 5(b)(i)) or to carry such proposal (with respect to a notice under Section 5(b)(ii)); (F) to the extent known by any Proponent, the name and address of any other stockholder supporting the proposal on the date of such stockholder's notice; and (G) a description of all Derivative Transactions (as defined below) by each Proponent during the previous twelve (12) month period, including the date of the transactions and the class, series and number of securities involved in, and the material economic terms of, such Derivative Transactions.

(c) A stockholder providing the written notice required by Section 5(b)(i) or 5(b)(ii) shall update and supplement such notice in writing, if necessary, so that the information provided or required to be provided in such notice is true and correct in all material respects as of (i) the record date for the meeting and (ii) the date that is five (5) business days prior to the meeting and, in the event of any adjournment or postponement thereof, five (5) business days prior to such adjourned or postponed meeting. In the case of an update and supplement pursuant to clause (i) of this Section 5(c), such update and supplement shall be received by the Secretary at the principal executive offices of the corporation not later than five (5) business days after the record date for the meeting. In the case of an update and supplement pursuant to clause (ii) of this Section 5(c), such update and supplement shall be received by the Secretary at the principal executive offices of the corporation not later than two (2) business days prior to the date for the meeting, and, in the event of any adjournment or postponement thereof, two (2) business days prior to such adjourned or postponed meeting.

(d) Notwithstanding anything herein to the contrary, in the event that the number of directors to be elected to the Board of Directors of the corporation at the annual meeting is increased effective after the time period for which nominations would otherwise be due under Section 5(b)(iii) and there is no public announcement by the corporation naming the nominees for the additional directorships at least one hundred (100) days prior to the first anniversary of the preceding year's annual meeting, a stockholder's notice required by this Section 5 shall also be considered timely, but only with respect to nominees for the additional directorships, if it shall be delivered to the Secretary at the principal executive offices of the corporation not later than the close of business on the tenth (10th) day following the day on which such public announcement is first made by the corporation.

(e) A person shall not be eligible for election or re-election as a director at the annual meeting unless the person is nominated either in accordance with clause (ii) or clause (iii) of Section 5(a). Except as otherwise required by law, the chairperson of the annual meeting shall have the power and duty to determine whether a nomination or any business proposed to be brought before the meeting was made, or proposed, as the case may be, in accordance with the procedures set forth in these Bylaws and, if any proposed nomination or business is not in compliance with these Bylaws, or the Proponent does not act in accordance with the representations in Sections 5(b)(iv)(D) and 5(b)(iv)(E), to declare that such proposal or nomination shall not be presented for stockholder action at the meeting and shall be disregarded, notwithstanding that proxies in respect of such nomination or such business may have been solicited or received.

(f) Notwithstanding the foregoing provisions of this Section 5, in order to include information with respect to a stockholder proposal in the proxy statement and form of proxy for a stockholders' meeting, a stockholder must also comply with all applicable requirements of the 1934 Act and the rules and regulations thereunder. Nothing in these Bylaws shall be deemed to affect any rights of stockholders to request inclusion of proposals in the corporation's proxy statement pursuant to Rule 14a-8 under the 1934 Act; *provided, however,* that any references in these Bylaws to the 1934 Act or the rules and regulations thereunder are not intended to and shall not limit the requirements applicable to proposals and/or nominations to be considered pursuant to Section 5(a).

(g) For purposes of Sections 5 and 6,

(i) "***affiliates***" and "***associates***" shall have the meanings set forth in Rule 405 under the Securities Act of 1933, as amended (the "***1933 Act***");

(ii) "***Derivative Transaction***" means any agreement, arrangement, interest or understanding entered into by, or on behalf or for the benefit of, any Proponent or any of its affiliates or associates, whether record or beneficial: (A) the value of which is derived in whole or in part from the value of any class or series of shares or other securities of the corporation; (B) that otherwise provides any direct or indirect opportunity to gain or share in any gain derived from a change in the value of securities of the corporation; (C) the effect or intent of which is to mitigate loss, manage risk or benefit of security value or price changes; or (D) that provides the right to vote or increase or decrease the voting power of, such Proponent, or any of its affiliates or associates, with respect to any securities of the corporation, which agreement, arrangement, interest or understanding may include, without limitation, any option, warrant, debt position, note, bond, convertible security, swap, stock appreciation right, short position, profit interest, hedge, right to dividends, voting agreement, performance-related fee or arrangement to borrow or lend shares (whether or not subject to payment, settlement, exercise or conversion in any such class or series), and any proportionate interest of such Proponent in the securities of the corporation held by any general or limited partnership, or any limited liability company, of which such Proponent is, directly or indirectly, a general partner or managing member; and

(iii) "***public announcement***" shall mean disclosure in a press release reported by the Dow Jones Newswires, Associated Press or comparable national news service or in a document publicly filed by the corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the 1934 Act or by such other means reasonably designed to inform the public or security holders in general of such information including, without limitation, posting on the corporation's investor relations website.

Section 6. Special Meetings.

(a) Special meetings of the stockholders of the corporation may be called, for any purpose as is a proper matter for stockholder action under Delaware law, by (i) the Chairperson of the Board of Directors, (ii) the Chief Executive Officer, or (iii) the Board of Directors pursuant to a resolution adopted by the Board of Directors.

(b) For a special meeting called pursuant to Section 6(a), the person(s) calling the meeting shall determine the time and place, if any, of the meeting; provided, however, that only the Board of Directors or a duly authorized committee thereof may authorize a meeting solely by means of remote communication. Upon determination of the date, time and place, if any, of the meeting, the Secretary shall cause a notice of meeting to be given to the stockholders entitled to vote, in accordance with the provisions of Section 7. No business may be transacted at a special meeting otherwise than as specified in the notice of meeting.

(c) Nominations of persons for election to the Board of Directors may be made at a special meeting of stockholders at which directors are to be elected (i) by or at the direction of the Board of Directors or a duly authorized committee thereof or (ii) by any stockholder of the corporation who is a stockholder of record or beneficial owner at the time of giving notice provided for in this paragraph, who is entitled to vote at the meeting and who delivers written notice to the Secretary of the corporation setting forth the information required by Section 5(b)(i) and the information required by Section 5(b)(iv). In the event the corporation calls a special meeting of stockholders for the purpose of electing one or more directors to the Board of Directors, any such stockholder of record or beneficial owner may nominate a person or persons (as the case may be), for election to such position(s) as specified in the corporation's notice of meeting, if written notice setting forth the information required by Section 5(b)(i) and the information required by Section 5(b)(iv) shall be received by the Secretary at the principal executive offices of the corporation not later than the close of business on the later of the ninetieth (90th) day prior to such meeting or the tenth (10th) day following the day on which the corporation first makes a public announcement of the date of the special meeting at which directors are to be elected. The stockholder shall also update and supplement such information as required under Section 5(c). In no event shall an adjournment or a postponement of a special meeting for which notice has been given, or the public announcement thereof has been made, commence a new time period (or extend any time period) for the giving of a stockholder's notice as described above.

(d) A person shall not be eligible for election or re-election as a director at the special meeting unless the person is nominated either in accordance with clause (i) or clause (ii) of Section 6(c). Except as otherwise required by law, the chairperson of the special meeting shall have the power and duty to determine whether a nomination was made in accordance with the procedures set forth in these Bylaws and, if any nomination or business is not in compliance with these Bylaws, to declare that such nomination shall not be presented for stockholder action at the meeting and shall be disregarded, notwithstanding that proxies in respect of such nomination may have been solicited or received.

(e) Notwithstanding the foregoing provisions of this Section 6, a stockholder must also comply with all applicable requirements of the 1934 Act and the rules and regulations thereunder with respect to matters set forth in this Section 6. Nothing in these Bylaws shall be deemed to affect any rights of stockholders to request inclusion of proposals in the corporation's proxy statement pursuant to Rule 14a-8 under the 1934 Act; *provided, however,* that any references in these Bylaws to the 1934 Act or the rules and regulations thereunder are not intended to and shall not limit the requirements applicable to nominations for the election to the Board of Directors or proposals of other businesses to be considered pursuant to Section 6(c).

Section 7. Notice of Meetings. Except as otherwise provided by law, notice, given in writing or by electronic transmission, of each meeting of stockholders shall be given not fewer than ten (10) nor more than sixty (60) days before the date of the meeting to each stockholder entitled to vote at such meeting, such notice to specify the place, if any, date and hour, in the case of special meetings, the purpose or purposes of the meeting, the record date for determining the stockholders entitled to notice of the meeting, and the means of remote communications, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at any such meeting. If mailed, notice is given when deposited in the United States mail, postage prepaid, directed to the stockholder at such stockholder's mailing address as it appears on the records of the corporation. If delivered by courier service, notice is given at the earlier of when the notice is received or left at such stockholder's address as it appears on the records of the corporation. If sent via electronic transmission, notice is given when directed to such stockholder's electronic mail address as it appears on the records of the corporation unless the stockholder has notified the corporation in writing or by electronic transmission of an objection to receiving notice by electronic mail or such notice is prohibited by Section 232(e) of the DGCL. Notice of the time, place, if any, and purpose of any meeting of stockholders (to the extent required) may be waived in writing, signed by the person entitled to notice thereof or by electronic transmission by such person, either before or after such meeting, and will be waived by any stockholder by his or her attendance thereat in person, by remote communication, if applicable, or by proxy, except when the stockholder attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Any stockholder so waiving notice of such meeting shall be bound by the proceedings of any such meeting in all respects as if due notice thereof had been given.

Section 8. Quorum; Voting. At all meetings of stockholders, except where otherwise provided by statute or by the Certificate of Incorporation, or by these Bylaws, the presence, in person, by remote communication, if applicable, or by proxy duly authorized, of the holders of a majority of the voting power of the outstanding shares of stock entitled to vote at the meeting shall constitute a quorum for the transaction of business. In the absence of a quorum, any meeting of stockholders may be adjourned, from time to time, either by the chairperson of the meeting or by vote of the holders of a majority of the voting power of the shares represented thereat and entitled to vote thereon, but no other business shall be transacted at such meeting. The stockholders present at a duly called or convened meeting, at which a quorum is present, may continue to transact business until adjournment, notwithstanding the withdrawal of enough stockholders to leave less than a quorum. Except as otherwise provided by statute or by applicable stock exchange rules, or by the Certificate of Incorporation or these Bylaws, in all matters other than the election of directors, the affirmative vote of the holders of a majority of the voting power of the shares present in person, by remote communication, if applicable, or represented by proxy duly authorized at the meeting and entitled to vote generally on the subject matter shall be the act of the stockholders. Except as otherwise provided by statute, the Certificate of Incorporation or these Bylaws, directors shall be elected by a plurality of the votes of the shares present in person, by remote communication, if applicable, or represented by proxy duly authorized at the meeting and entitled to vote generally on the election of directors. Where a separate vote by a class or classes or series is required, except where otherwise provided by statute, by applicable stock exchange rules or by the Certificate of Incorporation or these Bylaws, a majority of the voting power of the outstanding shares of such class or classes or series, present in person, by remote communication, if applicable, or represented by proxy duly authorized, shall constitute a quorum entitled to take action with respect to that vote on that matter. Except where otherwise provided by statute, by applicable stock exchange rules or by the Certificate of Incorporation or these Bylaws, the affirmative vote of the holders of a majority (plurality, in the case of the election of directors) of voting power of such class or classes or series present in person, by remote communication, if applicable, or represented by proxy at the meeting shall be the act of such class or classes or series.

Section 9. Adjournment and Notice of Adjourned Meetings. Any meeting of stockholders, whether annual or special, may be adjourned from time to time either by the person(s) who called the meeting or the chairperson of the meeting, or by the vote of the holders of a majority of the voting power of the shares present in person, by remote communication, if applicable, or represented by proxy duly authorized at the meeting and entitled to vote thereon. When a meeting is adjourned to another time or place, if any, notice need not be given of the adjourned meeting if the time and place, if any, and means of remote communications, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such adjourned meeting are announced at the meeting at which the adjournment is taken. At the adjourned meeting, the corporation may transact any business that might have been transacted at the original meeting. If the adjournment is for more than thirty (30) days, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting. If after the adjournment a new record date for determination of stockholders entitled to vote is fixed for the adjourned meeting, the Board of Directors shall fix as the record date for determining stockholders entitled to notice of such adjourned meeting the same or an earlier date as that fixed for determination of stockholders entitled to vote at the adjourned meeting, and shall give notice of the adjourned meeting to each stockholder of record as of the record date so fixed for notice of such adjourned meeting.

Section 10. Voting Rights. For the purpose of determining those stockholders entitled to vote at any meeting of the stockholders, except as otherwise provided by law, only persons in whose names shares stand on the stock records of the corporation on the record date shall be entitled to vote at any meeting of stockholders. Every person entitled to vote shall have the right to do so either in person, by remote communication, if applicable, or by an agent or agents authorized by a proxy granted in accordance with Delaware law. An agent so appointed need not be a stockholder. No proxy shall be voted or acted upon after three (3) years from its date of creation unless the proxy provides for a longer period. A proxy shall be irrevocable if it states that it is irrevocable and if, and only as long as, it is coupled with an interest sufficient in law to support an irrevocable power. A stockholder may revoke any proxy which is not irrevocable by attending the meeting and voting in person or by delivering to the Secretary of the corporation a revocation of the proxy or a new proxy bearing a later date. Voting at meetings of stockholders need not be by written ballot.

Section 11. **Joint Owners of Stock.** If shares or other securities having voting power stand of record in the names of two (2) or more persons, whether fiduciaries, members of a partnership, joint tenants, tenants in common, tenants by the entirety, or otherwise, or if two (2) or more persons have the same fiduciary relationship respecting the same shares, unless the Secretary is given written notice to the contrary and is furnished with a copy of the instrument or order appointing them or creating the relationship wherein it is so provided, their acts with respect to voting shall have the following effect: (a) if only one (1) votes, his or her act binds all; (b) if more than one (1) votes, the act of the majority so voting binds all; and (c) if more than one (1) votes, but the vote is evenly split on any particular matter, each faction may vote the securities in question proportionally, or any person voting the shares, or a beneficiary, may apply to the Delaware Court of Chancery for relief as provided in DGCL Section 217(b). If the instrument filed with the Secretary shows that any such tenancy is held in unequal interests, a majority or even-split for the purpose of subsection (c) shall be a majority or even-split in interest.

Section 12. **List of Stockholders.** The corporation shall prepare, at least ten (10) days before every meeting of stockholders, a complete list of the stockholders of record entitled to vote at said meeting, arranged in alphabetical order, showing the address of each stockholder and the number and class of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting for a period of at least ten (10) days prior to the meeting, (a) on a reasonably accessible electronic network, provided that the information required to gain access to such list is provided with the notice of the meeting, or (b) during ordinary business hours, at the principal place of business of the corporation. In the event that the corporation determines to make the list available on an electronic network, the corporation may take reasonable steps to ensure that such information is available only to stockholders of the corporation. The list shall be open to examination of any stockholder during the time of the meeting as provided by law.

Section 13. **Action without Meeting**. Unless otherwise provided in the Certificate of Incorporation, no action shall be taken by the stockholders of the corporation except at an annual or a special meeting of the stockholders called in accordance with these Bylaws, and no action of the stockholders of the corporation may be taken by the stockholders by written consent or electronic transmission.

Section 14. **Organization**.

(a) At every meeting of stockholders, the Chairperson of the Board of Directors, or, if a chairperson has not been appointed, is absent or refuses to act, the Chief Executive Officer, or, if no Chief Executive Officer is then serving, is absent or refuses to act, the President, or, if the President is absent or refuses to act, a chairperson of the meeting designated by the Board of Directors, or, if the Board of Directors does not designate such chairperson, a chairperson chosen by a majority of the voting power of the stockholders entitled to vote, present in person or by proxy duly authorized, shall act as chairperson. The Chairperson of the Board may appoint the Chief Executive Officer as chairperson of the meeting. The Secretary, or, in his or her absence, an Assistant Secretary directed to do so by the chairperson of the meeting, shall act as secretary of the meeting.

(b) The Board of Directors of the corporation shall be entitled to make such rules or regulations for the conduct of meetings of stockholders as it shall deem necessary, appropriate or convenient. Subject to such rules and regulations of the Board of Directors, if any, the chairperson of the meeting shall have the right and authority to convene and (for any or no reason) to recess and/or adjourn the meeting, to prescribe such rules, regulations and procedures and to do all such acts as, in the judgment of such chairperson, are necessary, appropriate or convenient for the proper conduct of the meeting, including, without limitation, establishing an agenda or order of business for the meeting, rules and procedures for maintaining order at the meeting and the safety of those present, limitations on participation in such meeting to stockholders of record of the corporation and their duly authorized and constituted proxies and such other persons as the chairperson shall permit, restrictions on entry to the meeting after the time fixed for the commencement thereof, limitations on the time allotted to questions or comments by participants and regulation of the opening and closing of the polls for balloting on matters which are to be voted on by ballot. The date and time of the opening and closing of the polls for each matter upon which the stockholders will vote at the meeting shall be announced at the meeting. Unless and to the extent determined by the Board of Directors or the chairperson of the meeting, meetings of stockholders shall not be required to be held in accordance with rules of parliamentary procedure.

(c) The corporation shall, in advance of any meeting of stockholders, appoint one (1) or more inspectors to act at the meeting and make a written report thereof. The corporation may designate one (1) or more persons as alternate inspectors to replace any inspector who fails to act. If no inspector or alternate is able to act at a meeting of stockholders, the chairperson of the meeting shall appoint one (1) or more inspectors to act at the meeting. Each inspector, before entering upon the discharge of the duties of inspector, shall take and sign an oath faithfully to execute the duties of inspector with strict impartiality and according to the best of such inspector's ability. The inspectors shall: (1) ascertain the number of shares outstanding and the voting power of each; (2) determine the shares represented at a meeting and the validity of proxies and ballots; (3) count all votes and ballots; (4) determine and retain for a reasonable period a record of the disposition of any challenges made to any determination by the inspectors; and (5) certify their determination of the number of shares represented at the meeting, and their count of all votes and ballots. The inspectors may appoint or retain other persons or entities to assist the inspectors in the performance of the duties of the inspectors. In determining the validity and counting of proxies and ballots, the inspectors shall be limited to an examination of the proxies, any envelopes submitted with those proxies, any information provided in accordance with Sections 211(e) or 212(c)(2) of the DGCL, or any information provided pursuant to Sections 211(a)(2)b.(i) or (iii) of the DGCL, ballots and the regular books and records of the corporation, except that the inspectors may consider other reliable information for the limited purpose of reconciling proxies and ballots submitted by or on behalf of banks, brokers, their nominees or similar persons which represent more votes than the holder of a proxy is authorized by the record owner to cast or more votes than the stockholder holds of record. If the inspectors consider other reliable information for the limited purpose permitted herein, the inspectors at the time they make their certification pursuant to Section 231(b)(5) of the DGCL shall specify the precise information considered by them including the person or persons from whom they obtained the information, when the information was obtained, the means by which the information was obtained and the basis for the inspectors' belief that such information is accurate and reliable.

ARTICLE IV

DIRECTORS

Section 15. Number and Term of Office. The authorized number of directors of the corporation shall be fixed exclusively from time to time by a resolution adopted by the majority of the Board of Directors. Directors need not be stockholders unless so required by the Certificate of Incorporation. If for any cause, the directors shall not have been elected at an annual meeting, they may be elected as soon thereafter as convenient at a special meeting of the stockholders called for that purpose in the manner provided in these Bylaws, or such vacancies may be filled in accordance with Section 18 herein.

Section 16. Powers. The business and affairs of the corporation shall be managed by or under the direction of the Board of Directors, except as may be otherwise provided by statute or by the Certificate of Incorporation.

Section 17. Classes of Directors. The directors shall be divided into classes as and to the extent provided in the Certificate of Incorporation, except as otherwise required by applicable law.

Section 18. Vacancies. Vacancies on the Board of Directors shall be filled as provided in the Certificate of Incorporation, except as otherwise required by applicable law.

Section 19. Resignation. Any director may resign at any time by delivering his or her notice in writing or by electronic transmission to the Secretary, such resignation to specify whether it will be effective at a particular time. If no such specification is made, the resignation shall be effective at the time of delivery of the resignation to the Secretary.

Section 20. Removal. Subject to the rights of holders of any series of Preferred Stock (as defined in the Certificate of Incorporation) to elect additional directors or remove such directors under specified circumstances, neither the Board of Directors nor any individual director may be removed except in the manner specified in Section 141(k) of the DGCL.

Section 21. Meetings.

(a) Regular Meetings. Unless otherwise restricted by the Certificate of Incorporation, regular meetings of the Board of Directors may be held at any time or date and at any place, if any, within or without the State of Delaware which has been designated by the Board of Directors and publicized among all directors, either orally or in writing, by telephone, including a voice-messaging system or other system designed to record and communicate messages, facsimile, telegraph or telex, or by electronic mail or other electronic means. No further notice shall be required for regular meetings of the Board of Directors.

(b) Special Meetings. Unless otherwise restricted by the Certificate of Incorporation, special meetings of the Board of Directors may be held at any date, time and place, if any, within or without the State of Delaware whenever called by the Chairperson of the Board, the Chief Executive Officer or the Board of Directors.

(c) Meetings by Electronic Communications Equipment. Any member of the Board of Directors, or of any committee thereof, may participate in a meeting by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and participation in a meeting by such means shall constitute presence in person at such meeting.

(d) Notice of Special Meetings. Notice of the time and place of all special meetings of the Board of Directors shall be given orally or in writing, by telephone, including a voice messaging system or other system or technology designed to record and communicate messages, facsimile, telegraph or telex, or by electronic mail or other electronic means, during normal business hours, at least twenty-four (24) hours before the date and time of the meeting. If notice is sent by U.S. mail, it shall be sent by first class mail, postage prepaid at least three (3) days before the date of the meeting. Notice of any special meeting may be waived in writing or by electronic transmission at any time before or after the meeting and will be waived by any director by attendance thereat, except when the director attends the meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened.

(e) **Waiver of Notice.** The transaction of all business at any meeting of the Board of Directors, or any committee thereof, however called or noticed, or wherever held, shall be as valid as though it had been transacted at a meeting duly held after regular call and notice, if a quorum be present and if, either before or after the meeting, each of the directors not present who did not receive notice shall sign a written waiver of notice or shall waive notice by electronic transmission. All such waivers shall be filed with the corporate records or made a part of the minutes of the meeting. Notice of any meeting will be waived by any director by attendance thereat, except when the director attends the meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened.

Section 22. **Quorum and Voting**.

(a) Unless the Certificate of Incorporation requires a greater number, a quorum of the Board of Directors shall consist of a majority of the directors currently serving on the Board of Directors (but in no event less than one third of the total authorized number of directors); *provided, however,* at any meeting whether a quorum be present or otherwise, a majority of the directors present may adjourn from time to time until the time fixed for the next regular meeting of the Board of Directors, without notice other than by announcement at the meeting.

(b) At each meeting of the Board of Directors at which a quorum is present, all questions and business shall be determined by the affirmative vote of a majority of the directors present, unless a different vote be required by law, the Certificate of Incorporation or these Bylaws.

Section 23. **Action Without Meeting.** Unless otherwise restricted by the Certificate of Incorporation or these Bylaws, any action required or permitted to be taken at any meeting of the Board of Directors or of any committee thereof may be taken without a meeting, if all members of the Board of Directors or committee, as the case may be, consent thereto in writing or by electronic transmission. The consent or consents shall be filed with the minutes of proceedings of the Board of Directors or committee, in the same paper or electronic form as the minutes are maintained.

Section 24. **Fees and Compensation.** Directors shall be entitled to such compensation for their services as may be approved by the Board of Directors or a committee thereof to which the Board of Directors has delegated such responsibility and authority, including, if so approved, by resolution of the Board of Directors or a committee thereof to which the Board of Directors has delegated such responsibility and authority, a fixed sum and expenses of attendance, if any, for attendance at each regular or special meeting of the Board of Directors and at any meeting of a committee of the Board of Directors. Nothing herein contained shall be construed to preclude any director from serving the corporation in any other capacity as an officer, agent, employee, or otherwise and receiving compensation therefor.

Section 25. **Committees**.

(a) **Executive Committee.** The Board of Directors may appoint an Executive Committee to consist of one or more members of the Board of Directors. The Executive Committee, to the extent permitted by law and provided in the resolution of the Board of Directors, shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the corporation, and may authorize the seal of the corporation to be affixed to all papers which may require it; but no such committee shall have the power or authority in reference to (i) approving or adopting, or recommending to the stockholders, any action or matter (other than the election or removal of directors) expressly required by the DGCL to be submitted to stockholders for approval, or (ii) adopting, amending or repealing any Bylaw of the corporation.

(b) Other Committees. The Board of Directors may, from time to time, appoint such other committees as may be permitted by law. Such other committees appointed by the Board of Directors shall consist of one (1) or more members of the Board of Directors and shall have such powers and perform such duties as may be prescribed by the resolution or resolutions creating such committees, but in no event shall any such committee have the powers denied to the Executive Committee in these Bylaws.

(c) Term. The Board of Directors, subject to any requirements of any outstanding series of Preferred Stock and the provisions of subsections (a) or (b) of this Section 25, may at any time increase or decrease the number of members of a committee or terminate the existence of a committee. The membership of a committee member shall terminate on the date of his or her death or voluntary resignation from the committee or from the Board of Directors. The Board of Directors may at any time for any reason remove any individual committee member and the Board of Directors may fill any committee vacancy created by death, resignation, removal or increase in the number of members of the committee. The Board of Directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee, and, in addition, in the absence or disqualification of any member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not he or she or they constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in the place of any such absent or disqualified member.

(d) Meetings. Unless the Board of Directors shall otherwise provide, regular meetings of the Executive Committee or any other committee appointed pursuant to this Section 25 shall be held at such times and places, if any, as are determined by the Board of Directors, or by any such committee, and when notice thereof has been given to each member of such committee, no further notice of such regular meetings need be given thereafter. Special meetings of any such committee may be held at any place, if any, which has been determined from time to time by such committee, and may be called by any director who is a member of such committee, upon notice to the members of such committee of the time and place of such special meeting given in the manner provided for the giving of notice to members of the Board of Directors of the time and place of special meetings of the Board of Directors. Notice of any regular or special meeting of any committee may be waived in writing or by electronic transmission at any time before or after the meeting and will be waived by any director by attendance thereat, except when the director attends such regular or special meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Unless otherwise provided by the Board of Directors in the resolutions authorizing the creation of the committee, a majority of the authorized number of members of any such committee shall constitute a quorum for the transaction of business, and the act of a majority of those members of the committee present at any meeting at which a quorum is present shall be the act of such committee.

Section 26. Duties of Chairperson of the Board of Directors. The Chairperson of the Board of Directors, if appointed and when present, shall preside at all meetings of the stockholders and the Board of Directors. The Chairperson of the Board of Directors shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers, as the Board of Directors shall designate from time to time.

Section 27. Organization. At every meeting of the directors, the Chairperson of the Board of Directors, or, if a Chairperson has not been appointed or is absent, the Chief Executive Officer (if a director), or, if a Chief Executive Officer is absent, the President (if a director), or if the President is absent, the most senior Vice President (if a director), or, in the absence of any such person, a chairperson of the meeting chosen by a majority of the directors present, shall preside over the meeting. The Secretary, or in his or her absence, any Assistant Secretary or other officer, director or other person directed to do so by the person presiding over the meeting, shall act as secretary of the meeting.

ARTICLE V

OFFICERS

Section 28. Officers Designated. The officers of the corporation shall include, if and when designated by the Board of Directors, the Chief Executive Officer, the President, one or more Vice Presidents, the Secretary, the Chief Financial Officer and the Treasurer. The Board of Directors may also appoint one or more Assistant Secretaries and Assistant Treasurers and such other officers and agents with such powers and duties as it shall deem necessary. The Board of Directors may assign such additional titles to one or more of the officers as it shall deem appropriate. Any one person may hold any number of offices of the corporation at any one time unless specifically prohibited therefrom by law. The salaries and other compensation of the officers of the corporation shall be fixed in the manner required by applicable law or stock exchange rules.

Section 29. Tenure and Duties of Officers.

(a) General. All officers shall be designated by and hold office at the pleasure of the Board of Directors and until their successors shall have been duly elected and qualified, or until their earlier death, resignation, retirement, disqualification or removal from office. If the office of any officer becomes vacant for any reason, the vacancy may be filled by the Board of Directors.

(b) Duties of Chief Executive Officer. The Chief Executive Officer shall preside at all meetings of the stockholders and at all meetings of the Board of Directors (if a director), unless the Chairperson of the Board of Directors has been appointed and is present. Unless an officer has been appointed Chief Executive Officer of the corporation, the President shall be the chief executive officer of the corporation and shall, subject to the control of the Board of Directors, have general supervision, direction and control of the business and officers of the corporation. To the extent that a Chief Executive Officer has been appointed and no President has been appointed, all references in these Bylaws to the President shall be deemed references to the Chief Executive Officer. The Chief Executive Officer shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers, as the Board of Directors shall designate from time to time.

(c) Duties of President. The President shall preside at all meetings of the stockholders and at all meetings of the Board of Directors (if a director), unless the Chairperson of the Board of Directors, or the Chief Executive Officer has been appointed and is present. Unless another officer has been appointed Chief Executive Officer of the corporation, the President shall be the chief executive officer of the corporation and shall, subject to the control of the Board of Directors, have general supervision, direction and control of the business and officers of the corporation. The President shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers, as the Board of Directors (or the Chief Executive Officer, if the Chief Executive Officer and President are not the same person and the Board of Directors has delegated the designation of the President's duties to the Chief Executive Officer) shall designate from time to time.

(d) Duties of Vice Presidents. A Vice President may assume and perform the duties of the President in the absence or disability of the President or whenever the office of President is vacant (unless the duties of the President are being filled by the Chief Executive Officer). A Vice President shall perform other duties commonly incident to their office and shall also perform such other duties and have such other powers as the Board of Directors or the Chief Executive Officer, or, if the Chief Executive Officer has not been appointed or is absent, the President shall designate from time to time.

(e) Duties of Secretary; Assistant Secretary. The Secretary shall attend all meetings of the stockholders and of the Board of Directors and shall record all acts and proceedings thereof in the minute book of the corporation. The Secretary shall give notice in conformity with these Bylaws of all meetings of the stockholders and of all meetings of the Board of Directors and any committee thereof requiring notice. The Secretary shall perform all other duties provided for in these Bylaws and other duties commonly incident to the office and shall also perform such other duties and have such other powers, as the Board of Directors shall designate from time to time. The Chief Executive Officer, or if no Chief Executive Officer is then serving, the President may direct any Assistant Secretary or other officer to assume and perform the duties of the Secretary in the absence or disability of the Secretary, and each Assistant Secretary shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors or the Chief Executive Officer, or if no Chief Executive Officer is then serving, the President shall designate from time to time.

(f) Duties of Chief Financial Officer. The Chief Financial Officer shall keep or cause to be kept the books of account of the corporation in a thorough and proper manner and shall render statements of the financial affairs of the corporation in such form and as often as required by the Board of Directors or the Chief Executive Officer, or if no Chief Executive Officer is then serving, the President. The Chief Financial Officer, subject to the order of the Board of Directors, shall have the custody of all funds and securities of the corporation. The Chief Financial Officer shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors or the Chief Executive Officer, or if no Chief Executive Officer is then serving, the President shall designate from time to time. To the extent that a Chief Financial Officer has been appointed and no Treasurer has been appointed, all references in these Bylaws to the Treasurer shall be deemed references to the Chief Financial Officer. The Chief Executive Officer, or if no Chief Executive Officer is then serving, the President may direct the Treasurer, if any, or any Assistant Treasurer, or the controller or any assistant controller to assume and perform the duties of the Chief Financial Officer in the absence or disability of the Chief Financial Officer, and each Treasurer and Assistant Treasurer and each controller and assistant controller shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors or the Chief Executive Officer, or if no Chief Executive Officer is then serving, the President shall designate from time to time.

(g) Duties of Treasurer; Assistant Treasurer. Unless another officer has been appointed Chief Financial Officer of the corporation, the Treasurer shall be the chief financial officer of the corporation and shall keep or cause to be kept the books of account of the corporation in a thorough and proper manner and shall render statements of the financial affairs of the corporation in such form and as often as required by the Board of Directors or the Chief Executive Officer, or if no Chief Executive Officer is then serving, the President, and, subject to the order of the Board of Directors, shall have the custody of all funds and securities of the corporation. The Treasurer shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors or the Chief Executive Officer, or if no Chief Executive Officer is then serving, the President and Chief Financial Officer (if not Treasurer) shall designate from time to time. The Chief Executive Officer, or if no Chief Executive Officer is then serving, the President and Chief Financial Officer may direct any Assistant Treasurer or the controller or any assistant controller to assume and perform the duties of the Treasurer in the absence or disability of the Treasurer, and each Assistant Treasurer and each controller and assistant controller shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors or the Chief Executive Officer, or if no Chief Executive Officer is then serving, the President and Chief Financial Officer shall designate from time to time.

Section 30. Delegation of Authority. The Board of Directors may from time to time delegate the powers or duties of any officer to any other officer or agent, notwithstanding any provision hereof.

Section 31. Resignations. Any officer may resign at any time by giving notice in writing or by electronic transmission to the Board of Directors or to the Chief Executive Officer, or if no Chief Executive Officer is then serving, to the President or to the Secretary. Any such resignation shall be effective when received by the person or persons to whom such notice is given, unless a later time is specified therein, in which event the resignation shall become effective at such later time. Unless otherwise specified in such notice, the acceptance of any such resignation shall not be necessary to make it effective. Any resignation shall be without prejudice to the rights, if any, of the corporation under any contract with the resigning officer.

Section 32. Removal. Any officer may be removed from office at any time, either with or without cause, by the Board of Directors, or by any committee or superior officer upon whom such power of removal may have been conferred by the Board of Directors.

ARTICLE VI

EXECUTION OF CORPORATE INSTRUMENTS AND VOTING

OF SECURITIES OWNED BY THE CORPORATION

Section 33. Execution of Corporate Instruments. The Board of Directors may, in its discretion, determine the method and designate the signatory officer or officers, or other person or persons, to execute on behalf of the corporation any corporate instrument or document, or to sign on behalf of the corporation the corporate name without limitation, or to enter into contracts on behalf of the corporation, except where otherwise provided by applicable law or these Bylaws, and such execution or signature shall be binding upon the corporation. All checks and drafts drawn on banks or other depositaries on funds to the credit of the corporation or in special accounts of the corporation shall be signed by such person or persons as the Board of Directors shall authorize so to do. Unless (i) authorized or ratified by the Board of Directors or (ii) within the agency power of an officer or any designee of any such officer (each, an "***Authorized Employee***"), no officer, agent or employee other than an Authorized Employee shall have any power or authority to bind the corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose or for any amount.

Section 34. Voting of Securities Owned by the Corporation. All stock and other securities and interests of other corporations and entities owned or held by the corporation for itself, or for other parties in any capacity, shall be voted, and all proxies with respect thereto shall be executed, by the person authorized so to do by resolution of the Board of Directors, or, in the absence of such authorization, by the Chairperson of the Board of Directors, the Chief Executive Officer, the President, or any Vice President.

ARTICLE VII

SHARES OF STOCK

Section 35. Form and Execution of Certificates. The shares of the corporation shall be represented by certificates, or shall be uncertificated if so provided by resolution or resolutions of the Board of Directors. Certificates, if any, for the shares of stock shall be in such form as is consistent with the Certificate of Incorporation and applicable law. Every holder of stock in the corporation represented by certificate shall be entitled to have a certificate signed by, or in the name of, the corporation by any two (2) authorized officers of the corporation, certifying the number of shares owned by such holder in the corporation. Any or all of the signatures on the certificate may be facsimiles. In case any officer, transfer agent, or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent, or registrar before such certificate is issued, it may be issued with the same effect as if he or she were such officer, transfer agent, or registrar at the date of issue.

Section 36. Lost Certificates. A new certificate or certificates shall be issued in place of any certificate or certificates theretofore issued by the corporation alleged to have been lost, stolen, or destroyed, upon the making of an affidavit of that fact by the person claiming the certificate of stock to be lost, stolen, or destroyed. The corporation may require, as a condition precedent to the issuance of a new certificate or certificates, the owner of such lost, stolen, or destroyed certificate or certificates, or the owner's legal representative, to agree to indemnify the corporation in such manner as it shall require or to give the corporation a surety bond in such form and amount as it may direct as indemnity against any claim that may be made against the corporation with respect to the certificate alleged to have been lost, stolen, or destroyed.

Section 37. Transfers.

(a) Transfers of record of shares of stock of the corporation shall be made only upon its books by the holders thereof, in person or by attorney duly authorized, and, in the case of stock represented by certificate, upon the surrender of a properly endorsed certificate or certificates for a like number of shares.

(b) The corporation shall have power to enter into and perform any agreement with any number of stockholders of any one or more classes or series of stock of the corporation to restrict the transfer of shares of stock of the corporation of any one or more classes owned by such stockholders in any manner not prohibited by the DGCL.

Section 38. Fixing Record Dates.

(a) In order that the corporation may determine the stockholders entitled to notice of any meeting of stockholders or any adjournment thereof, the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, and which record date shall, subject to applicable law, not be more than sixty (60) nor fewer than ten (10) days before the date of such meeting. If the Board of Directors so fixes a date, such date shall also be the record date for determining the stockholders entitled to vote at such meeting unless the Board of Directors determines, at the time it fixes such record date, that a later date on or before the date of the meeting shall be the date for making such determination. If no record date is fixed by the Board of Directors, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or if notice is waived, at the close of business on the day next preceding the day on which the meeting is held. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; *provided, however,* that the Board of Directors may fix a new record date for determination of stockholders entitled to vote at the adjourned meeting, and in such case shall also fix as the record date for stockholders entitled to notice of such adjourned meeting the same or an earlier date as that fixed for determination of stockholders entitled to vote in accordance herewith at the adjourned meeting.

(b) In order that the corporation may determine the stockholders entitled to receive payment of any dividend or other distribution or allotment of any rights or the stockholders entitled to exercise any rights in respect of any change, conversion or exchange of stock, or for the purpose of any other lawful action, the Board of Directors may fix, in advance, a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted, and which record date shall be not more than sixty (60) days prior to such action. If no record date is fixed, the record date for determining stockholders for any such purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating thereto.

Section 39. Registered Stockholders. The corporation shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends, and to vote as such owner, and shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of any other person whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Delaware.

ARTICLE VIII

OTHER SECURITIES OF THE CORPORATION

Section 40. Execution of Other Securities. All bonds, debentures and other corporate securities of the corporation, other than stock certificates (covered in Section 35), may be signed by any executive officer (as defined in Article XI) or any other officer or person as may be authorized by the Board of Directors; *provided, however,* that where any such bond, debenture or other corporate security shall be authenticated by the manual signature, or where permissible facsimile signature, of a trustee under an indenture pursuant to which such bond, debenture or other corporate security shall be issued, the signatures of the persons signing and attesting the corporate seal on such bond, debenture or other corporate security may be the imprinted facsimile of the signatures of such persons. Interest coupons appertaining to any such bond, debenture or other corporate security, authenticated by a trustee as aforesaid, shall be signed by an executive officer of the corporation or such other officer or person as may be authorized by the Board of Directors, or bear imprinted thereon the facsimile signature of such person. In case any officer who shall have signed or attested any bond, debenture or other corporate security, or whose facsimile signature shall appear thereon or on any such interest coupon, shall have ceased to be such officer before the bond, debenture or other corporate security so signed or attested shall have been delivered, such bond, debenture or other corporate security nevertheless may be adopted by the corporation and issued and delivered as though the person who signed the same or whose facsimile signature shall have been used thereon had not ceased to be such officer of the corporation.

ARTICLE IX

DIVIDENDS

Section 41. Declaration of Dividends. Dividends upon the outstanding capital stock of the corporation, subject to the provisions of the Certificate of Incorporation and applicable law, if any, may be declared by the Board of Directors. Dividends may be paid in cash, in property, or in shares of the corporation's capital stock, subject to the provisions of the Certificate of Incorporation and applicable law.

Section 42. Dividend Reserve. Before payment of any dividend, there may be set aside out of any funds of the corporation available for dividends such sum or sums as the Board of Directors from time to time, in its absolute discretion, thinks proper as a reserve or reserves to meet contingencies, or for equalizing dividends, or for repairing or maintaining any property of the corporation, or for such other purpose as the Board of Directors shall think conducive to the interests of the corporation, and the Board of Directors may modify or abolish any such reserve in the manner in which it was created.

ARTICLE X

FISCAL YEAR

Section 43. Fiscal Year. The fiscal year of the corporation shall end on December 31 or on such other date as may otherwise be fixed by resolution of the Board of Directors.

ARTICLE XI

INDEMNIFICATION

Section 44. Indemnification of Directors, Executive Officers, Employees and Other Agents.

(a) Directors and Executive Officers. The corporation shall indemnify its directors and executive officers (for the purposes of this Article XI, "***executive officers***" shall have the meaning defined in Rule 3b-7 promulgated under the 1934 Act) to the fullest extent permitted by the DGCL or any other applicable law as it presently exists or may hereafter be amended, who were or are made a party or are threatened to be made a party or are otherwise involved in proceeding, by reason of the fact that he or she, or a person for whom he or she is the legal representative, is or was a director or officer of the corporation, against all liability and loss suffered and expenses (including attorneys' fees) reasonably incurred by such person; *provided, however,* that the corporation may modify the extent of such indemnification by individual contracts with its directors and executive officers, in which case such contract shall supersede and replace the provisions hereof; and, *provided, further,* that the corporation shall not be required to indemnify any director or executive officer in connection with any proceeding (or part thereof) initiated by such person unless (i) such indemnification is expressly required to be made by law, (ii) the proceeding was authorized by the Board of Directors of the corporation, (iii) such indemnification is provided by the corporation, in its sole discretion, pursuant to the powers vested in the corporation under the DGCL or any other applicable law or (iv) such indemnification is required to be made under subsection (d) of this Section 44.

(b) Other Officers, Employees and Other Agents. The corporation shall have the power to indemnify (including the power to advance expenses in a manner consistent with subsection (c) of this Section 44) its other officers, employees and other agents as set forth in the DGCL or any other applicable law. The Board of Directors shall have the power to delegate the determination of whether indemnification shall be given to any such person except executive officers to such officers or other persons as the Board of Directors shall determine.

(c) Expenses. The corporation shall advance to any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he or she is or was a director or executive officer of the corporation, or is or was serving at the request of the corporation as a director or executive officer of another corporation, partnership, joint venture, trust or other enterprise, prior to the final disposition of the proceeding, promptly following request therefor, all expenses incurred by any director or executive officer in connection with such proceeding; *provided, however*, that if the DGCL requires, an advancement of expenses incurred by a director or executive officer in his or her capacity as a director or executive officer (and not in any other capacity in which service was or is rendered by such indemnitee, including, without limitation, service to an employee benefit plan) shall be made only upon delivery to the corporation of an undertaking (hereinafter an "***undertaking***"), by or on behalf of such indemnitee, to repay all amounts so advanced if it shall ultimately be determined by final judicial decision from which there is no further right to appeal (hereinafter a "***final adjudication***") that such indemnitee is not entitled to be indemnified for such expenses under this section or otherwise.

Notwithstanding the foregoing, unless otherwise determined pursuant to paragraph (d) of this Section 44, no advance shall be made by the corporation to an executive officer of the corporation (except by reason of the fact that such executive officer is or was a director of the corporation in which event this paragraph shall not apply) in any action, suit or proceeding, whether civil, criminal, administrative or investigative, if a determination is reasonably and promptly made (i) by a majority vote of directors who were not parties to the proceeding, even if not a quorum, or (ii) by a committee of such directors designated by a majority vote of such directors, even though less than a quorum, or (iii) if there are no such directors, or such directors so direct, by independent legal counsel in a written opinion, that the facts known to the decision-making party at the time such determination is made demonstrate clearly and convincingly that such person acted in bad faith or in a manner that such person did not reasonably believe to be in or not opposed to the best interests of the corporation.

(d) Enforcement. Without the necessity of entering into an express contract, all rights to indemnification and advances to directors and executive officers under this Bylaw shall be deemed to be contractual rights and be effective to the same extent and as if provided for in a contract between the corporation and the director or executive officer. Any right to indemnification or advances granted by this section to a director or executive officer shall be enforceable by or on behalf of the person holding such right in the Court of Chancery of the State of Delaware if (i) the claim for indemnification or advances is denied by the Board of Directors, in whole or in part, or (ii) no disposition of such claim is made within ninety (90) days of request therefor. To the extent permitted by law, the claimant in such enforcement action, if successful in whole or in part, shall be entitled to be paid also the expense of prosecuting the claim to the fullest extent permitted by law. In connection with any claim for indemnification, the corporation shall be entitled to raise as a defense to any such action that the claimant has not met the standards of conduct that make it permissible under the DGCL or any other applicable law for the corporation to indemnify the claimant for the amount claimed. In connection with any claim by an executive officer of the corporation (except in any action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that such executive officer is or was a director of the corporation) for advances, the corporation shall be entitled to raise a defense as to any such action clear and convincing evidence that such person acted in bad faith or in a manner that such person did not reasonably believe to be in or not opposed to the best interests of the corporation, or with respect to any criminal action or proceeding that such person acted without reasonable cause to believe that his or her conduct was lawful. Neither the failure of the corporation (including its Board of Directors, independent legal counsel or its stockholders) to have made a determination prior to the commencement of such action that indemnification of the claimant is proper in the circumstances because he or she has met the applicable standard of conduct set forth in the DGCL or any other applicable law, nor an actual determination by the corporation (including its Board of Directors, independent legal counsel or its stockholders) that the claimant has not met such applicable standard of conduct, shall be a defense to the action or create a presumption that claimant has not met the applicable standard of conduct. In any suit brought by a director or executive officer to enforce a right to indemnification or to an advancement of expenses hereunder, the burden of proving that the director or executive officer is not entitled to be indemnified, or to such advancement of expenses, under this section or otherwise shall be on the corporation.

(e) **Non-Exclusivity of Rights.** The rights conferred on any person by this Bylaw shall not be exclusive of any other right which such person may have or hereafter acquire under any applicable statute, provision of the Certificate of Incorporation, Bylaws, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in his or her official capacity and as to action in another capacity while holding office. The corporation is specifically authorized to enter into individual contracts with any or all of its directors, officers, employees or agents respecting indemnification and advances, to the fullest extent not prohibited by the DGCL, or by any other applicable law.

(f) **Survival of Rights.** The rights conferred on any person by this Bylaw shall continue as to a person who has ceased to be a director or executive officer or officer, employee or other agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

(g) **Insurance.** To the fullest extent permitted by the DGCL or any other applicable law, the corporation, upon approval by the Board of Directors, may purchase insurance on behalf of any person required or permitted to be indemnified pursuant to this section.

(h) **Amendments.** Any amendment, repeal or modification of this section shall only be prospective and shall not affect the rights under this Bylaw in effect at the time of the alleged occurrence of any action or omission to act that is the cause of any proceeding against any agent of the corporation.

(i) **Saving Clause.** If this Bylaw or any portion hereof shall be invalidated on any ground by any court of competent jurisdiction, then the corporation shall nevertheless indemnify each director and executive officer to the full extent not prohibited by any applicable portion of this section that shall not have been invalidated, or by any other applicable law. If this section shall be invalid due to the application of the indemnification provisions of another jurisdiction, then the corporation shall indemnify each director and executive officer to the full extent under any other applicable law.

(j) **Certain Definitions.** For the purposes of this Bylaw, the following definitions shall apply:

(i) The term "***proceeding***" shall be broadly construed and shall include, without limitation, the investigation, preparation, prosecution, defense, settlement, arbitration and appeal of, and the giving of testimony in, any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative.

(ii) The term "***expenses***" shall be broadly construed and shall include, without limitation, court costs, attorneys' fees, witness fees, fines, amounts paid in settlement or judgment and any other costs and expenses of any nature or kind incurred in connection with any proceeding.

(iii) The term the "***corporation***" shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, and employees or agents, so that any person who is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, shall stand in the same position under the provisions of this section with respect to the resulting or surviving corporation as he or she would have with respect to such constituent corporation if its separate existence had continued.

(iv) References to a "***director***," "***executive officer***," "***officer***," "***employee***," or "***agent***" of the corporation shall include, without limitation, situations where such person is serving at the request of the corporation as, respectively, a director, executive officer, officer, employee, trustee or agent of another corporation, partnership, joint venture, trust or other enterprise.

(v) References to "***other enterprises***" shall include employee benefit plans; references to "***fines***" shall include any excise taxes assessed on a person with respect to an employee benefit plan; and references to "***serving at the request of the corporation***" shall include any service as a director, officer, employee or agent of the corporation which imposes duties on, or involves services by, such director, officer, employee, or agent with respect to an employee benefit plan, its participants, or beneficiaries; and a person who acted in good faith and in a manner such person reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner "***not opposed to the best interests of the corporation***" as referred to in this section.

ARTICLE XII

NOTICES

Section 45. Notices.

(a) Notice to Stockholders. Notice to stockholders of stockholder meetings shall be given as provided in Section 7 herein. Without limiting the manner by which notice may otherwise be given effectively to stockholders, including under any agreement or contract with such stockholder, subject to Section 232(e) of the DGCL, any notice to stockholders given by the corporation under any provision of the DGCL, the Certificate of Incorporation or the Bylaws shall be effective if given by a form of electronic transmission consented to by the stockholder to whom the notice is given. Any such consent shall be revocable by the stockholder by written notice or electronic transmission to the corporation. Notice shall be deemed given pursuant to this Section 45, (1) if by facsimile telecommunication, when directed to a number at which the stockholder has consented to receive notice; (2) if by a posting on an electronic network together with separate notice to the stockholder of such specific posting, upon the later of (a) such posting, and (b) the giving of such separate notice; and (3) if by any other form of electronic transmission, when directed to the stockholder. For purposes of these Bylaws, (1) "***Electronic transmission***" means any form of communication, not directly involving the physical transmission of paper, including the use of, or participation in, one or more electronic networks or databases (including one or more distributed electronic networks or databases), that creates a record that may be retained, retrieved and reviewed by a recipient thereof, and that may be directly reproduced in paper form by such a recipient through an automated process; (2) "***Electronic mail***" means an electronic transmission directed to a unique electronic mail address (which electronic mail shall be deemed to include any files attached thereto and any information hyperlinked to a website if such electronic mail includes the contact information of an officer or agent of the corporation who is available to assist with accessing such files and information); and (3) "***Electronic mail address***" means a destination, commonly expressed as a string of characters, consisting of a unique user name or mailbox (commonly referred to as the "local part" of the address) and a reference to an internet domain (commonly referred to as the "domain part" of the address), whether or not displayed, to which electronic mail can be sent or delivered.

(b) Notice to Directors. Any notice required to be given to any director may be given by the method stated in subsection (a) or as otherwise provided in these Bylaws, with notice other than one which is delivered personally to be sent to such address as such director shall have filed in writing with the Secretary, or, in the absence of such filing, to the last known address of such director.

(c) Affidavit of Mailing. An affidavit of mailing, executed by a duly authorized and competent employee of the corporation or its transfer agent appointed with respect to the class of stock affected or other agent, specifying the name and address or the names and addresses of the stockholder or stockholders, or director or directors, to whom any such notice or notices was or were given, and the time and method of giving the same, shall in the absence of fraud, be prima facie evidence of the facts therein contained.

(d) Methods of Notice. It shall not be necessary that the same method of giving notice be employed in respect of all recipients of notice, but one permissible method may be employed in respect of any one or more, and any other permissible method or methods may be employed in respect of any other or others.

(e) Notice to Person with Whom Communication is Unlawful. Whenever notice is required to be given, under any provision of law or of the Certificate of Incorporation or Bylaws, to any person with whom communication is unlawful, the giving of such notice to such person shall not be required and there shall be no duty to apply to any governmental authority or agency for a license or permit to give such notice to such person. Any action or meeting which shall be taken or held without notice to any such person with whom communication is unlawful shall have the same force and effect as if such notice had been duly given. In the event that the action taken by the corporation is such as to require the filing of a certificate under any provision of the DGCL, the certificate shall state, if such is the fact and if notice is required, that notice was given to all persons entitled to receive notice except such persons with whom communication is unlawful.

(f) Notice to Stockholders Sharing an Address. Except as otherwise prohibited under the DGCL, any notice given under the provisions of the DGCL, the Certificate of Incorporation or the Bylaws shall be effective if given by a single written notice to stockholders who share an address if consented to by the stockholders at that address to whom such notice is given. Such consent shall have been deemed to have been given if such stockholder fails to object in writing to the corporation within sixty (60) days of having been given notice by the corporation of its intention to send the single notice. Any consent shall be revocable by the stockholder by written notice to the corporation.

ARTICLE XIII

AMENDMENTS

Section 46. Amendments. Subject to the limitations set forth in Section 44(h) of these Bylaws or the provisions of the Certificate of Incorporation, the Board of Directors is expressly empowered to adopt, amend or repeal the Bylaws. Any adoption, amendment or repeal of the Bylaws by the Board of Directors shall require the approval of a majority of the authorized number of directors. The stockholders also shall have power to adopt, amend or repeal the Bylaws; provided, however, that, in addition to any vote of the holders of any class or series of stock of the corporation required by law or by the Certificate of Incorporation, such action by stockholders shall require the affirmative vote of the holders of at least sixty-six and two-thirds percent (66 2/3%) of the voting power of all of the then-outstanding shares of the capital stock of the corporation entitled to vote generally in the election of directors, voting together as a single class.

ARTICLE XIV

LOANS TO OFFICERS

Section 47. Loans to Officers. Except as otherwise prohibited by applicable law, the corporation may lend money to, or guarantee any obligation of, or otherwise assist any officer or other employee of the corporation or of its subsidiaries, including any officer or employee who is a director of the corporation or its subsidiaries, whenever, in the judgment of the Board of Directors, such loan, guarantee or assistance may reasonably be expected to benefit the corporation. The loan, guarantee or other assistance may be with or without interest and may be unsecured, or secured in such manner as the Board of Directors shall approve, including, without limitation, a pledge of shares of stock of the corporation. Nothing in these Bylaws shall be deemed to deny, limit or restrict the powers of guaranty or warranty of the corporation at common law or under any statute.

ARTICLE XV

BOOKS AND RECORDS

Section 48. The books and records of the corporation may be kept within or outside the State of Delaware at such place or places as may from time to time be designated by the Board of Directors. Any books or records maintained by the corporation in the regular course of its business, including its stock ledger, books of account, and minute books, may be kept on, or by means of, or be in the form of, any information storage device or method; provided, however, that the books and records so kept can be converted into clearly legible paper form within a reasonable time. The corporation shall so convert any books or records so kept upon the request of any person entitled to inspect such records pursuant to the Certificate of Incorporation, these Bylaws or the DGCL.

Exhibit 4.1

pulmonX®

NUMBER

PX

SHARES

CUSIP 745848 10 1

INCORPORATED UNDER THE
LAWS OF THE STATE
OF DELAWARE

SEE REVERSE FOR CERTAIN
DEFINITIONS AND LEGENDS

This certifies that

is the record holder of

FULLY PAID AND NONASSESSABLE SHARES OF COMMON STOCK, $0.001 PAR VALUE PER SHARE, OF

PULMONX CORPORATION

CERTIFICATE OF STOCK

transferable on the books of the Corporation in person or by duly authorized attorney upon surrender of this Certificate properly endorsed. This Certificate is not valid until countersigned by the Transfer Agent and registered by the Registrar.

WITNESS the facsimile seal of the Corporation and the facsimile signatures of its duly authorized officers.

Dated:

PRESIDENT & CHIEF EXECUTIVE OFFICER

PULMONX CORPORATION
CORPORATE
SEAL
2013
DELAWARE

CHIEF FINANCIAL OFFICER

COUNTERSIGNED AND REGISTERED:
AMERICAN STOCK TRANSFER & TRUST COMPANY, LLC
(BROOKLYN, NY)
TRANSFER AGENT
AND REGISTRAR

BY:

AUTHORIZED SIGNATURE

HERITAGE BANKNOTE

The Corporation shall furnish without charge to each stockholder who so requests a statement of the powers, designations, preferences and relative, participating, optional or other special rights of each class of stock of the Corporation or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights. Such requests shall be made to the Corporation's Secretary at the principal office of the Corporation.

KEEP THIS CERTIFICATE IN A SAFE PLACE. IF IT IS LOST, STOLEN,OR DESTROYED THE CORPORATION WILL REQUIRE A BOND INDEMNITY AS A CONDITION TO THE ISSUANCE OF A REPLACEMENT CERTIFICATE.

The following abbreviations, when used in the inscription on the face of this certificate, shall be construed as though they were written out in full according to applicable laws or regulations:

TEN COM – as tenants in common
TEN ENT – as tenants by the entireties
JT TEN – as joint tenants with right of survivorship and not as tenants in common
COM PROP – as community property

UNIF GIFT MIN ACT – .... Custodian ....
(Cust) (Minor)
under Uniform Gifts to Minors
Act..
(State)

UNIF TRF MIN ACT – .... Custodian (until age ....)
(Cust)
.... under Uniform Transfers
(Minor)
to Minors Act..
(State)

Additional abbreviations may also be used though not in the above list.

FOR VALUE RECEIVED, ______________________________ hereby sell(s), assign(s) and transfer(s) unto

PLEASE INSERT SOCIAL SECURITY OR OTHER IDENTIFYING NUMBER OF ASSIGNEE

____

(PLEASE PRINT OR TYPEWRITE NAME AND ADDRESS, INCLUDING ZIP CODE, OF ASSIGNEE)

____

____

______________________________ shares
of the capital stock represented by within Certificate, and do hereby irrevocably constitute and appoint

______________________________ attorney-in-fact
to transfer the said stock on the books of the within named Corporation with full power of the substitution in the premises.

Dated ______________________

X ______________________________

X ______________________________

Signature(s) Guaranteed:

NOTICE: THE SIGNATURE TO THIS ASSIGNMENT MUST CORRESPOND WITH THE NAME AS WRITTEN UPON THE FACE OF THE CERTIFICATE IN EVERY PARTICULAR, WITHOUT ALTERATION OR ENLARGEMENT OR ANY CHANGE WHATSOEVER.

By ______________________________

THE SIGNATURE(S) SHOULD BE GUARANTEED BY AN ELIGIBLE GUARANTOR INSTITUTION, (BANKS, STOCKBROKERS, SAVINGS AND LOAN ASSOCIATIONS AND CREDIT UNIONS WITH MEMBERSHIP IN AN APPROVED SIGNATURE GUARANTEE MEDALLION PROGRAM), PURSUANT TO S.E.C. RULE 17Ad-15. GUARANTEES BY A NOTARY PUBLIC ARE NOT ACCEPTABLE. SIGNATURE GUARANTEES MUST NOT BE DATED.

Exhibit 5.1

Cooley

Seth J. Gottlieb
+1 650 843 5864
sgottlieb@cooley.com

September 24, 2020

Pulmonx Corporation
700 Chesapeake Drive
Redwood City, California 94603

Ladies and Gentlemen:

We have acted as counsel to Pulmonx Corporation, a Delaware corporation (the "***Company***"), in connection with the filing by the Company of a Registration Statement (No. 333-248635) on Form S-1 (the "***Registration Statement***") with the Securities and Exchange Commission, including a related prospectus filed with the Registration Statement (the "***Prospectus***"), covering an underwritten public offering of up to 7,666,667 shares of the Company's common stock, par value $0.001 ("***Shares***"), (including up to 1,000,000 Shares that may be sold by the Company upon exercise of an over-allotment option to be granted to the underwriters).

In connection with this opinion, we have (i) examined and relied upon (a) the Registration Statement and Prospectus, (b) the Company's Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws, as currently in effect, (c) the Company's Amended and Restated Certificate of Incorporation, filed as Exhibit 3.2 to the Registration Statement, and the Company's Amended and Restated Bylaws, filed as Exhibit 3.4 to the Registration Statement, each of which is to be in effect immediately following the closing of the offering contemplated by the Registration Statement and (d) originals or copies certified to our satisfaction of such records, documents, certificates, memoranda and other instruments as in our judgment are necessary or appropriate to enable us to render the opinion expressed below and (ii) assumed that the Shares will be sold at a price established by the Board of Directors of the Company or a duly authorized committee thereof. We have assumed the genuineness and authenticity of all documents submitted to us as originals, and the conformity to originals of all documents submitted to us as copies and the due execution and delivery of all documents where due execution and delivery are a prerequisite to the effectiveness thereof. As to certain factual matters, we have relied upon a certificate of an officer of the Company and have not sought independently to verify such matters.

Our opinion is expressed only with respect to the General Corporation Law of the State of Delaware. We express no opinion to the extent that any other laws are applicable to the subject matter hereof and express no opinion and provide no assurance as to compliance with any federal or state securities law, rule or regulation.

On the basis of the foregoing, and in reliance thereon, we are of the opinion that the Shares, when sold and issued against payment therefore in accordance with the Registration Statement and the Prospectus, will be validly issued, fully paid and non-assessable.

We consent to the reference to our firm under the caption "Legal Matters" in the Prospectus included in the Registration Statement and to the filing of this opinion as an exhibit to the Registration Statement.

Sincerely,

Cooley LLP

By: /s/ Seth J. Gottlieb
Seth J. Gottlieb

PULMONX CORPORATION

AMENDED AND RESTATED 2020 STOCK PLAN

1. **Purposes of the Plan**. The purposes of this 2020 Stock Plan are to attract and retain the best available personnel for positions of substantial responsibility, to provide additional incentive to Employees and Consultants and to promote the success of the Company's business. Options granted under the Plan may be Incentive Stock Options or Nonstatutory Stock Options, as determined by the Administrator at the time of grant of an option and subject to the applicable provisions of Section 422 of the Code and the regulations promulgated thereunder. Stock purchase rights may also be granted under the Plan. The Plan shall become effective upon its approval by the Board (the "Effective Date"). The Plan shall supersede the Company's Amended and Restated 2010 Stock Plan (the "2010 Plan") effective as of the Effective Date such that no further awards shall be made under the 2010 Plan on or after such date; provided, however, that (a) this Plan shall not, in any way, affect awards under the 2010 Plan that are outstanding as of the Effective Date; and (b) any Returning Shares from the 2010 Plan will become available for issuance pursuant to awards under this Plan.

2. **Definitions**. As used herein, the following definitions shall apply:

(a) **"Administrator"** means the Board or its Committee appointed pursuant to Section 4 of the Plan.

(b) **"Affiliate"** means an entity other than a Subsidiary (as defined below) which, together with the Company, is under common control of a third person or entity.

(c) **"Applicable Laws"** means the legal requirements relating to the administration of stock option and restricted stock purchase plans under applicable U.S. state corporate laws, U.S. federal and applicable state securities laws, the Code, any Stock Exchange rules or regulations and the applicable laws of any other country or jurisdiction where Options or Stock Purchase Rights are granted under the Plan, as such laws, rules, regulations and requirements shall be in place from time to time.

(d) **"Board"** means the Board of Directors of the Company.

(e) **"Cause"** for termination of a Participant's Continuous Service Status will exist, unless another applicable definition is provided in the Option Agreement, Restricted Stock Purchase Agreement, applicable employment agreement or other applicable agreement, if the Participant is terminated for any of the following reasons: (i) Participant's willful failure substantially to perform his or her duties and responsibilities to the Company or deliberate violation of a Company policy; (ii) Participant's commission of any act of fraud, embezzlement, dishonesty or any other willful misconduct that has caused or is reasonably expected to result in material injury to the Company; (iii) unauthorized use or disclosure by Participant of any proprietary information or trade secrets of the Company or any other party to whom the Participant owes an obligation of nondisclosure as a result of his or her relationship with the

Company; or (iv) Participant's willful breach of any of his or her obligations under any written agreement or covenant with the Company. The determination as to whether a Participant is being terminated for Cause shall be made in good faith by the Company and shall be final and binding on the Participant. The foregoing definition does not in any way limit the Company's ability to terminate a Participant's employment or consulting relationship at any time as provided in Section 5(d) below, and the term "Company" will be interpreted to include any Subsidiary, Parent, Affiliate or successor thereto, if appropriate.

(f) **"Change of Control"** means a sale of all or substantially all of the Company's assets, or any merger or consolidation of the Company with or into another corporation other than a merger or consolidation in which the holders of more than 50% of the shares of capital stock of the Company outstanding immediately prior to such transaction continue to hold (either by the voting securities remaining outstanding or by their being converted into voting securities of the surviving entity) more than 50% of the total voting power represented by the voting securities of the Company, or such surviving entity, outstanding immediately after such transaction.

(g) **"Code"** means the Internal Revenue Code of 1986, as amended.

(h) **"Committee"** means one or more committees or subcommittees of the Board appointed by the Board to administer the Plan in accordance with Section 4 below.

(i) **"Common Stock"** means the Common Stock of the Company.

(j) **"Company"** means Pulmonx Corporation, a Delaware corporation.

(k) **"Consultant"** means any person, including an advisor, who is engaged by the Company or any Parent, Subsidiary or Affiliate to render services and is compensated for such services, and any director of the Company whether compensated for such services or not.

(l) **"Continuous Service Status"** means the absence of any interruption or termination of service as an Employee or Consultant. Continuous Service Status as an Employee or Consultant shall not be considered interrupted in the case of: (i) sick leave; (ii) military leave; (iii) any other leave of absence approved by the Administrator, provided that such leave is for a period of not more than ninety (90) days, unless reemployment upon the expiration of such leave is guaranteed by contract or statute, or unless provided otherwise pursuant to Company policy adopted from time to time; or (iv) in the case of transfers between locations of the Company or between the Company, its Parents, Subsidiaries, Affiliates or their respective successors. A change in status from an Employee to a Consultant or from a Consultant to an Employee will not constitute an interruption of Continuous Service Status.

(m) **"Corporate Transaction"** means a sale of all or substantially all of the Company's assets, or a merger, consolidation or other capital reorganization of the Company with or into another corporation and includes a Change of Control.

(n) **"Director"** means a member of the Board.

(o) **"Employee"** means any person employed by the Company or any Parent, Subsidiary or Affiliate, with the status of employment determined based upon such factors as are deemed appropriate by the Administrator in its discretion, subject to any requirements of the Code or the Applicable Laws. The payment by the Company of a director's fee to a Director shall not be sufficient to constitute "employment" of such Director by the Company.

(p) **"Exchange Act"** means the Securities Exchange Act of 1934, as amended.

(q) **"Fair Market Value"** means, as of any date, the fair market value of the Common Stock, as determined by the Administrator in good faith on such basis as it deems appropriate and applied consistently with respect to Participants. Whenever possible, the determination of Fair Market Value shall be based upon the closing price for the Shares as reported in the Wall Street Journal for the applicable date. Notwithstanding anything herein to the contrary, the Fair Market Value of the Common Stock shall be determined consistent with Section 409A or Section 422 of the Code, to the extent applicable.

(r) **"Incentive Stock Option"** means an Option intended to qualify as an incentive stock option within the meaning of Section 422 of the Code, as designated in the applicable Option Agreement.

(s) **"Involuntary Termination"** means termination of a Participant's Continuous Service Status under the following circumstances: (i) termination without Cause by the Company or a Subsidiary, Parent, Affiliate or successor thereto, as appropriate; or (ii) voluntary termination by the Participant within 90 days following (A) a material reduction in the Participant's job responsibilities, provided that neither a mere change in title alone nor reassignment following a Change of Control to a position that is substantially similar to the position held prior to the Change of Control shall constitute a material reduction in job responsibilities; (B) relocation by the Company or a Subsidiary, Parent, Affiliate or successor thereto, as appropriate, of the Participant's work site to a facility or location more than 50 miles from the Participant's principal work site for the Company at the time of the Change of Control; or (C) a reduction in Participant's then-current base salary by at least 50%, provided that an across-the-board reduction in the salary level of all other employees or consultants in positions similar to the Participant's by the same percentage amount as part of a general salary level reduction shall not constitute such a salary reduction.

(t) **"Listed Security"** means any security of the Company that is listed or approved for listing on a national securities exchange or designated or approved for designation as a national market system security on an interdealer quotation system by the National Association of Securities Dealers, Inc.

(u) **"Nonstatutory Stock Option"** means an Option not intended to qualify as an Incentive Stock Option, as designated in the applicable Option Agreement.

(v) **"Option"** means a stock option granted pursuant to the Plan.

(w) **"Option Agreement"** means a written document, the form(s) of which shall be approved from time to time by the Administrator, reflecting the terns of an Option granted under the Plan and includes any documents attached to or incorporated into such Option Agreement, including, but not limited to, a notice of stock option grant and a form of exercise notice.

(x) **"Option Exchange Program"** means a program approved by the Administrator whereby outstanding Options are exchanged for Options with a lower exercise price or are amended to decrease the exercise price as a result of a decline in the Fair Market Value of the Common Stock.

(y) **"Optioned Stock"** means the Common Stock subject to an Option.

(z) **"Optionee"** means an Employee or Consultant who receives an Option.

(aa) **"Parent"** means a "parent corporation," whether now or hereafter existing, as defined in Section 424(e) of the Code, or any successor provision.

(bb) **"Participant"** means any holder of one or more Options or Stock Purchase Rights, or the Shares issuable or issued upon exercise of such awards, under the Plan.

(cc) **"Plan"** means this 2020 Stock Plan.

(dd) **"Reporting Person"** means an officer, Director, or greater than ten percent shareholder of the Company within the meaning of Rule 16a-2 under the Exchange Act, who is required to file reports pursuant to Rule 16a-3 under the Exchange Act.

(ee) **"Restricted Stock"** means Shares of Common Stock acquired pursuant to a grant of a Stock Purchase Right under Section 11 below.

(ff) **"Restricted Stock Purchase Agreement"** means a written document, the form(s) of which shall be approved from time to time by the Administrator, reflecting the terms of a Stock Purchase Right granted under the Plan and includes any documents attached to such agreement.

(gg) "**Returning Shares**" means Shares of Common Stock that following the Effective Date are (i) subject to outstanding awards granted under the 2010 Plan that are forfeited, expired or canceled; (ii) delivered to the Company in payment of the exercise price of an award granted under the 2010 Plan; or (iii) subject to outstanding awards granted under the 2010 Plan that may be settled in shares, cash or other consideration and that are ultimately settled in the form of cash or other consideration that is not Shares of Common Stock.

(hh) **"Rule 16b-3"** means Rule 16b-3 promulgated under the Exchange Act, as amended from time to time, or any successor provision.

(ii) **"Section 409A"** means Section 409A of the Code and the regulations promulgated thereunder.

(jj) **"Share"** means a share of the Common Stock, as adjusted in accordance with Section 14 of the Plan.

(kk) **"Stock Exchange"** means any stock exchange or consolidated stock price reporting system on which prices for the Common Stock are quoted at any given time.

(ll) **"Stock Purchase Right"** means the right to purchase Common Stock pursuant to Section 11 below.

(mm) **"Subsidiary"** means a "subsidiary corporation," whether now or hereafter existing, as defined in Section 424(f) of the Code, or any successor provision.

(nn) **"Ten Percent Holder"** means a person who owns stock representing more than ten percent (10%) of the voting power of all classes of stock of the Company or any Parent or Subsidiary.

3. **Stock Subject to the Plan**. Subject to the provisions of Section 14 of the Plan, the maximum aggregate number of Shares that may be sold under the Plan is 43,525,307 Shares of Common Stock, which equals the sum of (i) 10,500,000 Shares of Common Stock plus (ii) the number of Returning Shares, if any, as such shares become available from time to time, all of which Shares may be granted as Incentive Stock Options. The foregoing limit shall be construed to comply with Section 422 of the Code. The Shares may be authorized, but unissued, or reacquired Common Stock. If an award should expire or become unexercisable for any reason without having been exercised in full, or is surrendered pursuant to an Option Exchange Program, the unpurchased Shares that were subject thereto shall, unless the Plan shall have been terminated, become available for future grant under the Plan. In addition, any Shares of Common Stock which are retained by the Company upon exercise of an award in order to satisfy the exercise or purchase price for such award or any withholding taxes due with respect to such exercise or purchase shall be treated as not issued and shall continue to be available under the Plan. Shares issued under the Plan and later repurchased by the Company pursuant to any repurchase right which the Company may have shall not be available for future grant under the Plan.

4. **Administration of the Plan**.

(a) **General**. The Plan shall be administered by the Board or a Committee, or a combination thereof, as determined by the Board. The Plan may be administered by different administrative bodies with respect to different classes of Participants and, if permitted by the Applicable Laws, the Board may authorize one or more officers to make awards under the Plan.

(b) **Committee Composition**. If a Committee has been appointed pursuant to this Section 4, such Committee shall continue to serve in its designated capacity until otherwise directed by the Board. From time to time the Board may increase the size of any Committee and appoint additional members thereof, remove members (with or without cause) and appoint new members in substitution therefor, fill vacancies (however caused) and remove all members of a Committee and thereafter directly administer the Plan, all to the extent permitted by the

Applicable Laws and, in the case of a Committee administering the Plan in accordance with the requirements of Rule 16b-3 or Section 162(m) of the Code, to the extent permitted or required by such provisions.

(c) **Powers of the Administrator**. Subject to the provisions of the Plan and in the case of a Committee, the specific duties delegated by the Board to such Committee, the Administrator shall have the authority, in its discretion:

(i) to determine the Fair Market Value of the Common Stock, in accordance with Section 2(q) of the Plan, provided that such determination shall be applied consistently with respect to Participants under the Plan;

(ii) to select the Employees and Consultants to whom Options and Stock Purchase Rights may from time to time be granted;

(iii) to determine whether and to what extent Options and Stock Purchase Rights are granted;

(iv) to determine the number of Shares of Common Stock to be covered by each award granted;

(v) to approve the form(s) of agreement(s) used under the Plan;

(vi) to determine the terms and conditions, not inconsistent with the terms of the Plan, of any award granted hereunder, which terms and conditions include but are not limited to the exercise or purchase price, the time or times when awards may be exercised (which may be based on performance criteria), any vesting acceleration or waiver of forfeiture restrictions, and any restriction or limitation regarding any Option, Optioned Stock, Stock Purchase Right or Restricted Stock, based in each case on such factors as the Administrator, in its sole discretion, shall determine;

(vii) to determine whether and under what circumstances an Option may be settled in cash under Section 10(c) instead of Common Stock;

(viii) to implement an Option Exchange Program on such terms and conditions as the Administrator in its discretion deems appropriate, provided that no amendment or adjustment to an Option that would materially and adversely affect the rights of any Optionee shall be made without the prior written consent of the Optionee;

(ix) to adjust the vesting of an Option held by an Employee or Consultant as a result of a change in the terms or conditions under which such person is providing services to the Company;

(x) to construe and interpret the terms of the Plan and awards granted under the Plan, which constructions, interpretations and decisions shall be final and binding on all Participants; and

(xi) in order to fulfill the purposes of the Plan, to modify grants of Options or Stock Purchase Rights to Participants who are foreign nationals or employed outside of the United States in order to recognize differences in local law, tax policies or customs.

5. **Eligibility**.

(a) **Recipients of Grants**. Nonstatutory Stock Options and Stock Purchase Rights may be granted to Employees and Consultants. Incentive Stock Options may be granted only to Employees, provided that Employees of Affiliates shall not be eligible to receive Incentive Stock Options. Eligibility for Nonstatutory Stock Options is further limited to those otherwise eligible individuals as to whom the Company would be an "eligible issuer of service recipient stock" under Section 1.409A-1(b)(5)(iii)(E) of the Treasury Regulations.

(b) **Type of Option**. Each Option shall be designated in the Option Agreement as either an Incentive Stock Option or a Nonstatutory Stock Option.

(c) **ISO $100,000 Limitation**. Notwithstanding any designation under Section 5(b), to the extent that the aggregate Fair Market Value of Shares with respect to which Options designated as Incentive Stock Options are exercisable for the first time by any Optionee during any calendar year (under all plans of the Company or any Parent or Subsidiary) exceeds $100,000, such excess Options shall be treated as Nonstatutory Stock Options. For purposes of this Section 5(c), Incentive Stock Options shall be taken into account in the order in which they were granted, and the Fair Market Value of the Shares subject to an Incentive Stock Option shall be determined as of the date of the grant of such Option.

(d) **No Employment Rights**. The Plan shall not confer upon any Participant any right with respect to continuation of an employment or consulting relationship with the Company, nor shall it interfere in any way with such Participant's right or the Company's right to terminate his or her employment or consulting relationship at any time, with or without Cause.

6. **Term of Plan**. The Plan shall become effective upon its adoption by the Board. It shall continue in effect for a term of ten (10) years unless sooner terminated under Section 16 of the Plan.

7. **Term of Option**. The term of each Option shall be the term stated in the Option Agreement; provided that the term shall be no more than ten years from the date of grant thereof or such shorter term as may be provided in the Option Agreement and provided further that, in the case of an Incentive Stock Option granted to a person who at the time of such grant is a Ten Percent Holder, the term of the Option shall be five years from the date of grant thereof or such shorter term as may be provided in the Option Agreement.

8. **Reserved**.

9. **Option Exercise Price and Consideration**.

(a) **Exercise Price**. The per Share exercise price for the Shares to be issued pursuant to exercise of an Option shall be such price as is determined by the Administrator and set forth in the Option Agreement, but shall be subject to the following:

(i) In the case of an Incentive Stock Option

(A) granted to an Employee who at the time of grant is a Ten Percent Holder, the per Share exercise price shall be no less than 110% of the Fair Market Value per Share on the date of grant; or

(B) granted to any other Employee, the per Share exercise price shall be no less than 100% of the Fair Market Value per Share on the date of grant.

(ii) In the case of a Nonstatutory Stock Option

(A) granted prior to the date, if any, on which the Common Stock becomes a Listed Security to a person who is at the time of grant is a Ten Percent Holder, the per Share exercise price shall be no less than 110% of the Fair Market Value per Share on the date of grant;

(B) granted prior to the date, if any, on which the Common Stock becomes a Listed Security to any other eligible person, the per Share exercise price shall be no less than 100% of the Fair Market Value per Share on the date of grant; or

(C) granted on or after the date, if any, on which the Common Stock becomes a Listed Security to any eligible person, the per share Exercise Price shall be such price as determined by the Administrator provided the per share Exercise Price shall be no less than 100% of the Fair Market Value on the date of grant.

(iii) Notwithstanding the foregoing, Options may be granted with a per Share exercise price other than as required above pursuant to a merger or other corporate transaction, to the extent permitted under Section 409A.

(b) **Permissible Consideration**. The consideration to be paid for the Shares to be issued upon exercise of an Option, including the method of payment, shall be determined by the Administrator (and, in the case of an Incentive Stock Option, shall be determined at the time of grant) and may consist entirely of (1) cash; (2) check; (3) delivery of Optionee's promissory note with such recourse, interest, security and redemption provisions as the Administrator determines to be appropriate; (4) cancellation of indebtedness of the Company to Optionee; (5) other Shares that have a Fair Market Value on the date of surrender equal to the aggregate exercise price of the Shares as to which the Option is exercised, provided that in the case of Shares acquired, directly or indirectly, from the Company, such Shares must have been owned by the Optionee for more than six months on the date of surrender (or such other period as determined by the Administrator); (6) delivery of a properly executed exercise notice together with such other documentation as the Administrator and a securities broker approved by the Company shall require to effect exercise of the Option and prompt delivery to the Company of the sale or loan proceeds required to pay the exercise price and any applicable withholding taxes; (7) any combination of the foregoing methods of payment; or (8) such other consideration and method of payment permitted under Applicable Laws. In making its determination as to the type of consideration to accept, the Administrator shall consider if acceptance of such consideration may be reasonably expected to benefit the Company and the Administrator may, in its sole discretion, refuse to accept a particular form of consideration at the time of any Option exercise.

10. **Exercise of Option**.

(a) **General**.

(i) **Exercisability**. Any Option granted hereunder shall be exercisable at such times and under such conditions as determined by the Administrator, consistent with the term of the Plan and reflected in the Option Agreement, including vesting requirements and/or performance criteria with respect to the Company and/or the Optionee; provided however that, if required by the Applicable Laws, any Option granted prior to the date, if any, upon which the Common Stock becomes a Listed Security shall become exercisable at the rate of at least 20% per year over five years from the date the Option is granted. In the event that any of the Shares issued upon exercise of an Option (which exercise occurs prior to the date, if any, upon which the Common Stock becomes a Listed Security) should be subject to a right of repurchase in the Company's favor, such repurchase right shall, if required by the Applicable Laws, lapse at the rate of at least 20% per year over five years from the date the Option is granted. Notwithstanding the above, in the case of an Option granted to an officer, Director or Consultant of the Company or any Parent, Subsidiary or Affiliate of the Company, the Option may become fully exercisable, or a repurchase right, if any, in favor of the Company shall lapse, at any time or during any period established by the Administrator. The Administrator shall have the discretion to determine whether and to what extent the vesting of Options shall be tolled during any unpaid leave of absence; provided, however, that in the absence of such determination, vesting of Options shall be tolled during any such leave.

(ii) **Minimum Exercise Requirements**. An Option may not be exercised for a fraction of a Share. The Administrator may require that an Option be exercised as to a minimum number of Shares, provided that such requirement shall not prevent an Optionee from exercising the full number of Shares as to which the Option is then exercisable.

(iii) **Procedures for and Results of Exercise**. An Option shall be deemed exercised when written notice of such exercise has been given to the Company in accordance with the terms of the Option by the person entitled to exercise the Option and the Company has received full payment for the Shares with respect to which the Option is exercised. Full payment may, as authorized by the Administrator, consist of any consideration and method of payment allowable under Section 9(b) of the Plan, provided that the Administrator may, in its sole discretion, refuse to accept any form of consideration at the time of any Option exercise.

Exercise of an Option in any manner shall result in a decrease in the number of Shares that thereafter may be available, both for purposes of the Plan and for sale under the Option, by the number of Shares as to which the Option is exercised.

(iv) **Rights as Shareholder**. Until the issuance of the Shares (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), no right to vote or receive dividends or any other rights as a shareholder shall exist with respect to the Optioned Stock, notwithstanding the exercise of the Option. No adjustment will be made for a dividend or other right for which the record date is prior to the date the stock certificate is issued.

(b) **Termination of Employment or Consulting Relationship**. Except as otherwise set forth in this Section 10(b), the Administrator shall establish and set forth in the applicable Option Agreement the terms and conditions upon which an Option shall remain exercisable, if at all, following termination of an Optionee's Continuous Service Status, which provisions may be waived or modified by the Administrator at any time. To the extent that the Optionee is not entitled to exercise an Option at the date of his or her termination of Continuous Service Status, or if the Optionee (or other person entitled to exercise the Option) does not exercise the Option to the extent so entitled within the time specified in the Option Agreement or below (as applicable), the Option shall terminate with no consideration due to the Optionee and the Optioned Stock underlying the unexercised portion of the Option shall revert to the Plan. In no event may any Option be exercised after the expiration of the Option term as set forth in the Option Agreement (and subject to Section 7).

The following provisions (1) shall apply to the extent an Option Agreement does not specify the terms and conditions upon which an Option shall terminate upon termination of an Optionee's Continuous Service Status, and (2) establish the minimum post-termination exercise periods that may be set forth in an Option Agreement:

(i) **Termination other than Upon Disability or Death or for Cause**. In the event of termination of an Optionee's Continuous Service Status, such Optionee may exercise an Option for 30 days following such termination to the extent the Optionee was entitled to exercise it at the date of such termination. No termination shall be deemed to occur and this Section 10(b)(i) shall not apply if (i) the Optionee is a Consultant who becomes an Employee, or (ii) the Optionee is an Employee who becomes a Consultant.

(ii) **Disability of Optionee**. In the event of termination of an Optionee's Continuous Service Status as a result of his or her disability (including a disability within the meaning of Section 22(e)(3) of the Code), such Optionee may exercise an Option at any time within six months following such termination to the extent the Optionee was entitled to exercise it at the date of such termination.

(iii) **Death of Optionee**. In the event of the death of an Optionee during the period of Continuous Service Status since the date of grant of the Option, or within thirty days following termination of Optionee's Continuous Service Status, the Option may be exercised by Optionee's estate or by a person who acquired the right to exercise the Option by bequest or inheritance, subject to delivery of proof of the same to the Administrator, at any time within twelve months following the date of death, but only to the extent of the right to exercise that had accrued at the date of death or, if earlier, the date the Optionee's Continuous Service Status terminated.

(iv) **Termination for Cause**. In the event of termination of an Optionee's Continuous Service Status for Cause, any Option (including any exercisable portion thereof) held by such Optionee shall immediately terminate in its entirety with no consideration due to the Optionee upon first notification to the Optionee of termination of the Optionee's Continuous Service Status. If an Optionee's employment or consulting relationship with the Company is suspended pending an investigation of whether the Optionee shall be terminated for Cause, all the Optionee's rights under any Option likewise shall be suspended during the investigation period and the Optionee shall have no right to exercise any Option.

(c) **Buyout Provisions**. The Administrator may at any time offer to buy out for a payment in cash or Shares an Option previously granted under the Plan based on such terms and conditions as the Administrator shall establish and communicate to the Optionee at the time that such offer is made. Any such buyout shall be done in a manner that complies with Applicable Laws, including the requirements of Section 409A.

11. **Stock Purchase Rights**.

(a) **Rights to Purchase**. When the Administrator determines that it will offer Stock Purchase Rights under the Plan, it shall advise the offeree in writing of the terms, conditions and restrictions related to the offer, including the number of Shares that such person shall be entitled to purchase, the price to be paid, and the time within which such person must accept such offer. If the Applicable Laws do not impose the requirements set forth in the preceding sentence and with respect to any Stock Purchase Rights granted after the date, if any, on which the Common Stock becomes a Listed Security, the purchase price of Shares subject to Stock Purchase Rights shall be as determined by the Administrator. The offer to purchase Shares subject to Stock Purchase Rights shall be accepted by execution of a Restricted Stock Purchase Agreement in the form determined by the Administrator. The permissible consideration for Stock Purchase Rights shall be determined by the Administrator and shall be the same as is set forth in Section 9(b) with respect to exercise of Options.

(b) **Repurchase Option**. Unless the Administrator determines otherwise, the Restricted Stock Purchase Agreement shall grant the Company a repurchase option exercisable upon the voluntary or involuntary termination of the purchaser's employment with the Company for any reason (including death or disability). The purchase price for Shares repurchased pursuant to the Restricted Stock Purchase Agreement shall be the lower of (i) the original purchase price paid by the purchaser or (ii) the Fair Market Value of a Share on the day of the termination of employment, and may be paid by cancellation of any indebtedness of the purchaser to the Company. The repurchase option shall lapse at such rate as the Administrator may determine, provided that with respect to a Stock Purchase Right granted prior to the date, if any, on which the Common Stock becomes a Listed Security to a purchaser who is not an officer, Director or Consultant of the Company or of any Parent or Subsidiary of the Company, it shall lapse at a minimum rate of 20% per year if required by the Applicable Laws.

(c) **Other Provisions**. The Restricted Stock Purchase Agreement shall contain such other terms, provisions and conditions not inconsistent with the Plan as may be determined by the Administrator in its sole discretion. In addition, the provisions of Restricted Stock Purchase Agreements need not be the same with respect to each purchaser.

(d) **Rights as a Shareholder**. Once the Stock Purchase Right is exercised, the purchaser shall have the rights equivalent to those of a shareholder, and shall be a shareholder when his or her purchase is entered upon the records of the duly authorized transfer agent of the Company. No adjustment will be made for a dividend or other right for which the record date is prior to the date the Stock Purchase Right is exercised.

12. **Taxes**.

(a) As a condition of the exercise of an Option or Stock Purchase Right granted under the Plan, the Participant (or in the case of the Participant's death, the person exercising the Option or Stock Purchase Right) shall make such arrangements as the Administrator may require for the satisfaction of any applicable federal, state, local or foreign withholding tax obligations that may arise in connection with the exercise of the Option or Stock Purchase Right and the issuance of Shares. The Company shall not be required to issue any Shares under the Plan until such obligations are satisfied. If the Administrator allows the withholding or surrender of Shares to satisfy a Participant's tax withholding obligations under this Section 12 (whether pursuant to Section 12(c), (d) or (e), or otherwise), the Administrator shall not allow Shares to be withheld in an amount that exceeds the minimum statutory withholding rates for federal and state tax purposes, including payroll taxes.

(b) In the case of an Employee and in the absence of any other arrangement, the Employee shall be deemed to have directed the Company to withhold or collect from his or her compensation an amount sufficient to satisfy such tax obligations from the next payroll payment otherwise payable after the date of an exercise of the Option or Stock Purchase Right.

(c) This Section 12(c) shall apply only after the date, if any, upon which the Common Stock becomes a Listed Security. In the case of Participant other than an Employee (or in the case of an Employee where the next payroll payment is not sufficient to satisfy such tax obligations, with respect to any remaining tax obligations), in the absence of any other arrangement and to the extent permitted under the Applicable Laws, the Participant shall be deemed to have elected to have the Company withhold from the Shares to be issued upon exercise of the Option or Stock Purchase Right that number of Shares having a Fair Market Value determined as of the applicable Tax Date (as defined below) equal to the minimum statutory amount required to be withheld. For purposes of this Section 12, the Fair Market Value of the Shares to be withheld shall be determined on the date that the amount of tax to be withheld is to be determined under the Applicable Laws (the "Tax Date").

(d) If permitted by the Administrator, in its discretion, a Participant may satisfy his or her tax withholding obligations upon exercise of an Option or Stock Purchase Right by surrendering to the Company Shares that have a Fair Market Value determined as of the applicable Tax Date equal to the minimum statutory amount required to be withheld. In the case of shares previously acquired from the Company that are surrendered under this Section 12(d), such Shares must have been owned by the Participant for more than six (6) months on the date of surrender (or such other period of time as determined by the Administrator).

(e) Any election or deemed election by a Participant to have Shares withheld to satisfy tax withholding obligations under Section 12(c) or (d) above shall be irrevocable as to the particular Shares as to which the election is made and shall be subject to the consent or disapproval of the Administrator. Any election by a Participant under Section 12(d) above must be made on or prior to the applicable Tax Date.

(f) In the event an election to have Shares withheld is made by a Participant and the Tax Date is postponed under Section 83 of the Code because no election is filed under Section 83(b) of the Code, the Participant shall receive the full number of Shares with respect to which the Option or Stock Purchase Right is exercised but such Participant shall be unconditionally obligated to tender back to the Company the proper number of Shares on the Tax Date.

13. **Non-Transferability of Options and Stock Purchase Rights.**

(a) **General**. Except as set forth in this Section 13, Options and Stock Purchase Rights may not be sold, pledged, assigned, hypothecated, transferred or disposed of in any manner other than by will or by the laws of descent or distribution. The designation of a beneficiary by an Optionee will not constitute a transfer. An Option or Stock Purchase Right may be exercised, during the lifetime of the holder of an Option or Stock Purchase Right, only by such holder or a transferee permitted by this Section 13.

(b) **Limited Transferability Rights**. Notwithstanding anything else in this Section 13, prior to the date, if any, on which the Common Stock becomes a Listed Security, the Administrator may in its discretion grant Nonstatutory Stock Options that may be transferred by instrument to an inter vivos or testamentary trust in which the Options are to be passed to beneficiaries upon the death of the trustor (settlor) or by gift to “Immediate Family” (as defined below), on such terms and conditions as the Administrator deems appropriate. Following the date, if any, on which the Common Stock becomes a Listed Security, the Administrator may in its discretion grant transferable Nonstatutory Stock Options pursuant to Option Agreements specifying the manner in which such Nonstatutory Stock Options are transferable. “Immediate Family ‘means any child, stepchild, grandchild, parent, stepparent, grandparent, spouse, sibling, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law, or sister-in-law, and shall include adoptive relationships.

14. **Adjustments Upon Changes in Capitalization, Merger or Certain Other Transactions**.

(a) **Changes in Capitalization**. Subject to any required action by the shareholders of the Company, the number of Shares of Common Stock covered by each outstanding Option or Stock Purchase Right and the number of Shares of Common Stock that have been authorized for issuance under the Plan but as to which no Options or Stock Purchase Rights have yet been granted or that have been returned to the Plan upon cancellation or expiration of an Option or Stock Purchase Right, as well as the price per Share of Common Stock covered by each such outstanding Option or Stock Purchase Right, shall be proportionately adjusted for any increase or decrease in the number of issued Shares of Common Stock resulting from a stock split, reverse stock split, stock dividend, combination, recapitalization or reclassification of the Common Stock, or any other increase or decrease in the number of issued Shares of Common Stock effected without receipt of consideration by the Company; provided, however, that conversion of any convertible securities of the Company shall not be deemed to have been "effected without receipt of consideration." Such adjustment shall be made by the Administrator, whose determination in that respect shall be final, binding and conclusive.

Except as expressly provided herein, no issuance by the Company of shares of stock of any class, or securities convertible into shares of stock of any class, shall affect, and no adjustment by reason thereof shall be made with respect to, the number or price of Shares of Common Stock subject to an Option or Stock Purchase Right.

(b) **Dissolution or Liquidation**. In the event of the dissolution or liquidation of the Company, each Option and Stock Purchase Right will terminate immediately prior to the consummation of such action, unless otherwise determined by the Administrator.

(c) **Corporate Transaction**. Unless the Option Agreement, Stock Purchase Agreement, applicable employment agreement or other applicable agreement provides otherwise, in the event of a Corporate Transaction, each outstanding Option or Stock Purchase Right shall be assumed or an equivalent option or right shall be substituted by such successor corporation or a parent or subsidiary of such successor corporation (the "Successor Corporation"), unless the Successor Corporation does not agree to assume the award or to substitute an equivalent option or right, in which case such Option or Stock Purchase Right shall terminate upon the consummation of the transaction.

Notwithstanding the above, unless the Option Agreement, Stock Purchase Agreement, applicable employment agreement or other applicable agreement provides otherwise, in the event (i) of a Change of Control, and (ii) a Participant holding an Option or Stock Purchase Right assumed or substituted by the Successor Corporation in the Change of Control, or holding Restricted Stock issued upon exercise of an Option or Stock Purchase Right with respect to which the Successor Corporation has succeeded to a repurchase right as a result of the Change of Control, is Involuntarily Terminated by the Successor Corporation without Cause in connection with, or within 3 months following consummation of, the transaction, then any assumed or substituted Option or Stock Purchase Right held by the terminated Participant at the time of termination shall accelerate and become exercisable as to the number of Shares that would otherwise have vested and been exercisable as of the date 30 days from the date of termination, and any repurchase right applicable to any Shares shall lapse as to the number of Shares as to which the repurchase right would otherwise have lapsed as of the date 30 days from the date of termination, in each case assuming the Participant remained in Continuous Service Status for such 30 day period. The acceleration of vesting and lapse of repurchase rights provided for in the previous sentence shall occur immediately prior to the effective date of the Participant's termination.

For purposes of this Section 14(c), an Option or a Stock Purchase Right shall be considered assumed, without limitation, if, at the time of issuance of the stock or other consideration upon a Corporate Transaction or a Change of Control, as the case may be, each holder of an Option or Stock Purchase Right would be entitled to receive upon exercise of the award the same number and kind of shares of stock or the same amount of property, cash or securities as such holder would have been entitled to receive upon the occurrence of the transaction if the holder had been, immediately prior to such transaction, the holder of the number of Shares of Common Stock covered by the award at such time (after giving effect to any adjustments in the number of Shares covered by the Option or Stock Purchase Right as provided for in this Section 14); provided that if such consideration received in the transaction is not solely common stock of the Successor Corporation, the Administrator may, with the consent of the Successor Corporation, provide for the consideration to be received upon exercise of the award to be solely common stock of the Successor Corporation equal to the Fair Market Value of the per Share consideration received by holders of Common Stock in the transaction.

(d) **Limitation on Payments**. In the event that the vesting acceleration or lapse of a repurchase right provided for in Section 14(c) above (x) constitutes "parachute payments" within the meaning of Section 280G of the Code, and (y) but for this Section 14(d) would be subject to the excise tax imposed by Section 4999 of the Code (or any corresponding provisions of state income tax law), then such vesting acceleration or lapse of a repurchase right shall be either

(A) delivered in full, or

(B) delivered as to such lesser extent which would result in no portion of such vesting acceleration being subject to excise tax under Code Section 4999, whichever amount, taking into account the applicable federal, state and local income taxes and the excise tax imposed by Code Section 4999, results in the receipt by the Participant on an after-tax basis of the greater amount of acceleration or lapse of repurchase rights benefits, notwithstanding that all or some portion of such benefits may be taxable under Code Section 4999. Any determination required under this Section 14(d) shall be made in writing by the Company's independent accountants, whose determination shall be conclusive and binding for all purposes on the Company and any affected Participant. In the event that (A) above applies, then the Participant shall be responsible for any excise taxes imposed with respect to such benefits. In the event that (B) above applies, then each benefit provided hereunder shall be proportionately reduced to the extent necessary to avoid imposition of such excise taxes.

(e) **Certain Distributions**. In the event of any distribution to the Company's shareholders of securities of any other entity or other assets (other than dividends payable in cash or stock of the Company) without receipt of consideration by the Company, the Administrator may, in its discretion, to the extent permitted by Section 409A, appropriately adjust the price per Share of Common Stock covered by each outstanding Option or Stock Purchase Right to reflect the effect of such distribution.

(f) **Section 409A**. Any adjustments or actions contemplated by this Section 14 shall be done in a manner that complies with the requirements of Section 409A, to the extent applicable.

15. **Time of Granting Options and Stock Purchase Rights**. The date of grant of an Option or Stock Purchase Right shall, for all purposes, be the date on which the Administrator completes the corporate action necessary to create the legally binding right constituting such Option or Stock Purchase Right, or such other date as is determined by the Administrator. Notice of the determination shall be given to each Employee or Consultant to whom an Option or Stock Purchase Right is so granted within a reasonable time after the date of such grant.

16. **Amendment and Termination of the Plan**.

(a) **Authority to Amend or Terminate**. The Board may at any time amend, alter, suspend or discontinue the Plan, but no amendment, alteration, suspension or discontinuation (other than an adjustment pursuant to Section 14 above) shall be made that would materially and adversely affect the rights of any Optionee or holder of Stock Purchase Rights under any outstanding grant, without his or her consent. In addition, to the extent necessary and desirable to comply with the Applicable Laws, the Company shall obtain shareholder approval of any Plan amendment in such a manner and to such a degree as required.

(b) **Effect of Amendment or Termination**. No amendment or termination of the Plan shall materially and adversely affect Options or Stock Purchase Rights already granted, unless mutually agreed otherwise between the Optionee or holder of the Stock Purchase Rights and the Administrator, which agreement must be in writing and signed by the Optionee or holder and the Company.

17. **Conditions Upon Issuance of Shares**. Notwithstanding any other provision of the Plan or any agreement entered into by the Company pursuant to the Plan, the Company shall not be obligated, and shall have no liability for failure, to issue or deliver any Shares under the Plan unless such issuance or delivery would comply with the Applicable Laws, with such compliance determined by the Company in consultation with its legal counsel. As a condition to the exercise of an Option or Stock Purchase Right, the Company may require the person exercising the award to represent and warrant at the time of any such exercise that the Shares are being purchased only for investment and without any present intention to sell or distribute such Shares if, in the opinion of counsel for the Company, such a representation is required by law.

18. **Reservation of Shares**. The Company, during the term of this Plan, will at all times reserve and keep available such number of Shares as shall be sufficient to satisfy the requirements of the Plan.

19. **Agreements**. Options and Stock Purchase Rights shall be evidenced by Option Agreements and Restricted Stock Purchase Agreements, respectively, in such form(s) as the Administrator shall from time to time approve.

20. **Shareholder Approval**. If required by the Applicable Laws, continuance of the Plan shall be subject to approval by the shareholders of the Company within twelve (12) months before or after the date the Plan is adopted. Such shareholder approval shall be obtained in the manner and to the degree required under the Applicable Laws.

21. **Information and Documents to Optionees and Purchasers**. Prior to the date, if any, upon which the Common Stock becomes a Listed Security and if required by the Applicable Laws, the Company shall provide financial statements at least annually to each Optionee and to each individual who acquired Shares pursuant to the Plan, during the period such Optionee or purchaser has one or more Options or Stock Purchase Rights outstanding, and in the case of an individual who acquired Shares pursuant to the Plan, during the period such individual owns such Shares. The Company shall not be required to provide such information if the issuance of Options or Stock Purchase Rights under the Plan is limited to key employees whose duties in connection with the Company assure their access to equivalent information.

22. **Limitation of Liability**. The awards granted under the Plan are intended to be exempt from Section 409A. Notwithstanding the foregoing, or anything to the contrary in the Plan, neither the Company, any subsidiary, nor the Board, nor any person acting on behalf of the Company, any subsidiary, or the Board, shall be liable to any participant or to the estate or beneficiary of any participant or to any other holder of an Option by reason of any acceleration of income, or any additional tax, asserted by reason of the failure of an Option to satisfy the requirements of Section 409A or by reason of Section 4999 of the Code.

Pulmonx Corporation
2020 Equity Incentive Plan

Adopted by the Board of Directors: September 15, 2020
Approved by the Stockholders: September 16, 2020

1. GENERAL.

(a) Successor to Prior Plan. The Plan is the successor to the Prior Plan. As of the Effective Date, (i) no additional awards may be granted under the Prior Plan; and (ii) all outstanding awards granted under the Prior Plan will remain subject to the terms of the Prior Plan. All Awards granted under this Plan will be subject to the terms of this Plan.

(b) Plan Purpose. The Company, by means of the Plan, seeks to secure and retain the services of Employees, Directors and Consultants, to provide incentives for such persons to exert maximum efforts for the success of the Company and any Affiliate and to provide a means by which such persons may be given an opportunity to benefit from increases in value of the Common Stock through the granting of Awards.

(c) Available Awards. The Plan provides for the grant of the following Awards: (i) Incentive Stock Options; (ii) Nonstatutory Stock Options; (iii) SARs; (iv) Restricted Stock Awards; (v) RSU Awards; (vi) Performance Awards; and (vii) Other Awards.

(d) Adoption Date; Effective Date. The Plan will come into existence on the Adoption Date, but no Award may be granted prior to the Effective Date.

2. SHARES SUBJECT TO THE PLAN.

(a) Share Reserve. Subject to adjustment in accordance with Section 2(c) and any adjustments as necessary to implement any Capitalization Adjustments, the aggregate number of shares of Common Stock that may be issued pursuant to Awards will not exceed 3,600,000 shares. In addition, subject to any adjustments as necessary to implement any Capitalization Adjustments, such aggregate number of shares of Common Stock will automatically increase on January 1 of each year for a period of ten years commencing on January 1, 2021 and ending on (and including) January 1, 2030, in an amount equal to 4% of the total number of shares of Common Stock outstanding on December 31 of the preceding year; provided, however, that the Board may act prior to January 1st of a given year to provide that the increase for such year will be a lesser number of shares of Common Stock.

(b) Aggregate Incentive Stock Option Limit. Notwithstanding anything to the contrary in Section 2(a) and subject to any adjustments as necessary to implement any Capitalization Adjustments, the aggregate maximum number of shares of Common Stock that may be issued pursuant to the exercise of Incentive Stock Options is 10,000,000 shares.

(c) Share Reserve Operation.

(i) Limit Applies to Common Stock Issued Pursuant to Awards. For clarity, the Share Reserve is a limit on the number of shares of Common Stock that may be issued pursuant to Awards and does not limit the granting of Awards, except that the Company will keep available at all times the number of shares of Common Stock reasonably required to satisfy its obligations to issue shares pursuant to such Awards. Shares may be issued in connection with a merger or acquisition as permitted by, as applicable, Nasdaq Listing Rule 5635(c), NYSE Listed Company Manual Section 303A.08, NYSE American Company Guide Section 711 or other applicable rule, and such issuance will not reduce the number of shares available for issuance under the Plan.

(ii) Actions that Do Not Constitute Issuance of Common Stock and Do Not Reduce Share Reserve. The following actions do not result in an issuance of shares under the Plan and accordingly do not reduce the number of shares subject to the Share Reserve and available for issuance under the Plan: (1) the expiration or termination of any portion of an Award without the shares covered by such portion of the Award having been issued, (2) the settlement of any portion of an Award in cash (i.e., the Participant receives cash rather than Common Stock), (3) the withholding of shares that would otherwise be issued by the Company to satisfy the exercise, strike or purchase price of an Award; or (4) the withholding of shares that would otherwise be issued by the Company to satisfy a tax withholding obligation in connection with an Award.

(iii) Reversion of Previously Issued Shares of Common Stock to Share Reserve. The following shares of Common Stock previously issued pursuant to an Award and accordingly initially deducted from the Share Reserve will be added back to the Share Reserve and again become available for issuance under the Plan: (1) any shares that are forfeited back to or repurchased by the Company because of a failure to meet a contingency or condition required for the vesting of such shares; (2) any shares that are reacquired by the Company to satisfy the exercise, strike or purchase price of an Award; and (3) any shares that are reacquired by the Company to satisfy a tax withholding obligation in connection with an Award.

3. ELIGIBILITY AND LIMITATIONS.

(a) Eligible Award Recipients. Subject to the terms of the Plan, Employees, Directors and Consultants are eligible to receive Awards.

(b) Specific Award Limitations.

(i) Limitations on Incentive Stock Option Recipients. Incentive Stock Options may be granted only to Employees of the Company or a "parent corporation" or "subsidiary corporation" thereof (as such terms are defined in Sections 424(e) and (f) of the Code).

(ii) Incentive Stock Option $100,000 Limitation. To the extent that the aggregate Fair Market Value (determined at the time of grant) of Common Stock with respect to which Incentive Stock Options are exercisable for the first time by any Optionholder during any calendar year (under all plans of the Company and any Affiliates) exceeds $100,000 (or such other limit established in the Code) or otherwise does not comply with the rules governing Incentive Stock Options, the Options or portions thereof that exceed such limit (according to the order in which they were granted) or otherwise do not comply with such rules will be treated as Nonstatutory Stock Options, notwithstanding any contrary provision of the applicable Option Agreement(s).

(iii) Limitations on Incentive Stock Options Granted to Ten Percent Stockholders. A Ten Percent Stockholder may not be granted an Incentive Stock Option unless (i) the exercise price of such Option is at least 110% of the Fair Market Value on the date of grant of such Option and (ii) the Option is not exercisable after the expiration of five years from the date of grant of such Option.

(iv) Limitations on Nonstatutory Stock Options and SARs. Nonstatutory Stock Options and SARs may not be granted to Employees, Directors and Consultants who are providing Continuous Service only to any "parent" of the Company (as such term is defined in Rule 405) unless the stock underlying such Awards is treated as "service recipient stock" under Section 409A because the Awards are granted pursuant to a corporate transaction (such as a spin off transaction) or unless such Awards otherwise comply with the distribution requirements of Section 409A.

(c) Aggregate Incentive Stock Option Limit. The aggregate maximum number of shares of Common Stock that may be issued pursuant to the exercise of Incentive Stock Options is the number of shares specified in Section 2(b).

(d) Non-Employee Director Compensation Limit. The aggregate value of all compensation granted or paid, as applicable, to any individual for service as a Non-Employee Director with respect to any calendar year, including Awards granted and cash fees paid by the Company to such Non-Employee Director, will not exceed $500,000 in total value, calculating the value of any equity awards based on the grant date fair value of such equity awards for financial reporting purposes.

4. OPTIONS AND STOCK APPRECIATION RIGHTS.

Each Option and SAR will have such terms and conditions as determined by the Board. Each Option will be designated in writing as an Incentive Stock Option or Nonstatutory Stock Option at the time of grant; provided, however, that if an Option is not so designated, then such Option will be a Nonstatutory Stock Option, and the shares purchased upon exercise of each type of Option will be separately accounted for. Each SAR will be denominated in shares of Common Stock equivalents. The terms and conditions of separate Options and SARs need not be identical; provided, however, that each Option Agreement and SAR Agreement will conform (through incorporation of provisions hereof by reference in the Award Agreement or otherwise) to the substance of each of the following provisions:

(a) Term. Subject to Section 3(b) regarding Ten Percent Stockholders, no Option or SAR will be exercisable after the expiration of ten years from the date of grant of such Award or such shorter period specified in the Award Agreement.

(b) Exercise or Strike Price. Subject to Section 3(b) regarding Ten Percent Stockholders, the exercise or strike price of each Option or SAR will not be less than 100% of the Fair Market Value on the date of grant of such Award. Notwithstanding the foregoing, an Option or SAR may be granted with an exercise or strike price lower than 100% of the Fair Market Value on the date of grant of such Award if such Award is granted pursuant to an assumption of or substitution for another option or stock appreciation right pursuant to a Corporate Transaction and in a manner consistent with the provisions of Sections 409A and, if applicable, 424(a) of the Code.

(c) Exercise Procedure and Payment of Exercise Price for Options. In order to exercise an Option, the Participant must provide notice of exercise to the Plan Administrator in accordance with the procedures specified in the Option Agreement or otherwise provided by the Company. The Board has the authority to grant Options that do not permit all of the following methods of payment (or otherwise restrict the ability to use certain methods) and to grant Options that require the consent of the Company to utilize a particular method of payment. The exercise price of an Option may be paid, to the extent permitted by Applicable Law and as determined by the Board, by one or more of the following methods of payment to the extent set forth in the Option Agreement:

(i) by cash or check, bank draft or money order payable to the Company;

(ii) pursuant to a "cashless exercise" program developed under Regulation T as promulgated by the Federal Reserve Board that, prior to the issuance of the Common Stock subject to the Option, results in either the receipt of cash (or check) by the Company or the receipt of irrevocable instructions to pay the exercise price to the Company from the sales proceeds;

(iii) by delivery to the Company (either by actual delivery or attestation) of shares of Common Stock that are already owned by the Participant free and clear of any liens, claims, encumbrances or security interests, with a Fair Market Value on the date of exercise that does not exceed the exercise price, provided that (1) at the time of exercise the Common Stock is publicly traded, (2) any remaining balance of the exercise price not satisfied by such delivery is paid by the Participant in cash or other permitted form of payment, (3) such delivery would not violate any Applicable Law or agreement restricting the redemption of the Common Stock, (4) any certificated shares are endorsed or accompanied by an executed assignment separate from certificate, and (5) such shares have been held by the Participant for any minimum period necessary to avoid adverse accounting treatment as a result of such delivery;

(iv) if the Option is a Nonstatutory Stock Option, by a "net exercise" arrangement pursuant to which the Company will reduce the number of shares of Common Stock issuable upon exercise by the largest whole number of shares with a Fair Market Value on the date of exercise that does not exceed the exercise price, provided that (1) such shares used to pay the exercise price will not be exercisable thereafter and (2) any remaining balance of the exercise price not satisfied by such net exercise is paid by the Participant in cash or other permitted form of payment; or

(v) in any other form of consideration that may be acceptable to the Board and permissible under Applicable Law.

(d) Exercise Procedure and Payment of Appreciation Distribution for SARs. In order to exercise any SAR, the Participant must provide notice of exercise to the Plan Administrator in accordance with the SAR Agreement. The appreciation distribution payable to a Participant upon the exercise of a SAR will not be greater than an amount equal to the excess of (i) the aggregate Fair Market Value on the date of exercise of a number of shares of Common Stock equal to the number of Common Stock equivalents that are vested and being exercised under such SAR, over (ii) the strike price of such SAR. Such appreciation distribution may be paid to the Participant in the form of Common Stock or cash (or any combination of Common Stock and cash) or in any other form of payment, as determined by the Board and specified in the SAR Agreement.

(e) Transferability. Options and SARs may not be transferred to third party financial institutions for value. The Board may impose such additional limitations on the transferability of an Option or SAR as it determines. In the absence of any such determination by the Board, the following restrictions on the transferability of Options and SARs will apply, provided that except as explicitly provided herein, neither an Option nor a SAR may be transferred for consideration and provided, further, that if an Option is an Incentive Stock Option, such Option may be deemed to be a Nonstatutory Stock Option as a result of such transfer:

(i) Restrictions on Transfer. An Option or SAR will not be transferable, except by will or by the laws of descent and distribution, and will be exercisable during the lifetime of the Participant only by the Participant; provided, however, that the Board may permit transfer of an Option or SAR in a manner that is not prohibited by applicable tax and securities laws upon the Participant's request, including to a trust if the Participant is considered to be the sole beneficial owner of such trust (as determined under Section 671 of the Code and applicable state law) while such Option or SAR is held in such trust, provided that the Participant and the trustee enter into a transfer and other agreements required by the Company.

(ii) Domestic Relations Orders. Notwithstanding the foregoing, subject to the execution of transfer documentation in a format acceptable to the Company and subject to the approval of the Board or a duly authorized Officer, an Option or SAR may be transferred pursuant to a domestic relations order.

(f) Vesting. The Board may impose such restrictions on or conditions to the vesting and/or exercisability of an Option or SAR as determined by the Board. Except as otherwise provided in the Award Agreement or other written agreement between a Participant and the Company or an Affiliate, vesting of Options and SARs will cease upon termination of the Participant's Continuous Service.

(g) Termination of Continuous Service for Cause. Except as explicitly otherwise provided in the Award Agreement or other written agreement between a Participant and the Company or an Affiliate, if a Participant's Continuous Service is terminated for Cause, the Participant's Options and SARs will terminate and be forfeited immediately upon such termination of Continuous Service, and the Participant will be prohibited from exercising any portion (including any vested portion) of such Awards on and after the date of such termination of Continuous Service and the Participant will have no further right, title or interest in such forfeited Award, the shares of Common Stock subject to the forfeited Award, or any consideration in respect of the forfeited Award.

(h) Post-Termination Exercise Period Following Termination of Continuous Service for Reasons Other than Cause. Subject to Section 4(i), if a Participant's Continuous Service terminates for any reason other than for Cause, the Participant may exercise his or her Option or SAR to the extent vested, but only within the following period of time or, if applicable, such other period of time provided in the Award Agreement or other written agreement between a Participant and the Company or an Affiliate; provided, however, that in no event may such Award be exercised after the expiration of its maximum term (as set forth in Section 4(a)):

(i) three months following the date of such termination if such termination is a termination without Cause (other than any termination due to the Participant's Disability or death);

(ii) 12 months following the date of such termination if such termination is due to the Participant's Disability;

(iii) 18 months following the date of such termination if such termination is due to the Participant's death; or

(iv) 18 months following the date of the Participant's death if such death occurs following the date of such termination but during the period such Award is otherwise exercisable (as provided in (i) or (ii) above).

Following the date of such termination, to the extent the Participant does not exercise such Award within the applicable Post-Termination Exercise Period (or, if earlier, prior to the expiration of the maximum term of such Award), such unexercised portion of the Award will terminate, and the Participant will have no further right, title or interest in terminated Award, the shares of Common Stock subject to the terminated Award, or any consideration in respect of the terminated Award.

(i) Restrictions on Exercise; Extension of Exercisability. A Participant may not exercise an Option or SAR at any time that the issuance of shares of Common Stock upon such exercise would violate Applicable Law. Except as otherwise provided in the Award Agreement or other written agreement between a Participant and the Company or an Affiliate, if a Participant's Continuous Service terminates for any reason other than for Cause and, at any time during the last thirty days of the applicable Post-Termination Exercise Period: (i) the exercise of the Participant's Option or SAR would be prohibited solely because the issuance of shares of Common Stock upon such exercise would violate Applicable Law, or (ii) the immediate sale of any shares of Common Stock issued upon such exercise would violate the Company's Trading Policy, then the applicable Post-Termination Exercise Period will be extended to the last day of the calendar month that commences following the date the Award would otherwise expire, with an additional extension of the exercise period to the last day of the next calendar month to apply if any of the foregoing restrictions apply at any time during such extended exercise period, generally without limitation as to the maximum permitted number of extensions); provided, however, that in no event may such Award be exercised after the expiration of its maximum term (as set forth in Section 4(a)).

(j) Non-Exempt Employees. No Option or SAR, whether or not vested, granted to an Employee who is a non-exempt employee for purposes of the Fair Labor Standards Act of 1938, as amended, will be first exercisable for any shares of Common Stock until at least six months following the date of grant of such Award. Notwithstanding the foregoing, in accordance with the provisions of the Worker Economic Opportunity Act, any vested portion of such Award may be exercised earlier than six months following the date of grant of such Award in the event of (i) such Participant's death or Disability, (ii) a Corporate Transaction in which such Award is not assumed, continued or substituted, (iii) a Change in Control, or (iv) such Participant's retirement (as such term may be defined in the Award Agreement or another applicable agreement or, in the absence of any such definition, in accordance with the Company's then current employment policies and guidelines). This Section 4(j) is intended to operate so that any income derived by a non-exempt employee in connection with the exercise or vesting of an Option or SAR will be exempt from his or her regular rate of pay.

(k) Whole Shares. Options and SARs may be exercised only with respect to whole shares of Common Stock or their equivalents.

5. AWARDS OTHER THAN OPTIONS AND STOCK APPRECIATION RIGHTS.

(a) Restricted Stock Awards and RSU Awards. Each Restricted Stock Award and RSU Award will have such terms and conditions as determined by the Board; provided, however, that each Restricted Stock Award Agreement and RSU Award Agreement will conform (through incorporation of the provisions hereof by reference in the Award Agreement or otherwise) to the substance of each of the following provisions:

(i) Form of Award.

(1) RSAs: To the extent consistent with the Company's Bylaws, at the Board's election, shares of Common Stock subject to a Restricted Stock Award may be (i) held in book entry form subject to the Company's instructions until such shares become vested or any other restrictions lapse, or (ii) evidenced by a certificate, which certificate will be held in such form and manner as determined by the Board. Unless otherwise determined by the Board, a Participant will have voting and other rights as a stockholder of the Company with respect to any shares subject to a Restricted Stock Award.

(2) RSUs: A RSU Award represents a Participant's right to be issued on a future date the number of shares of Common Stock that is equal to the number of restricted stock units subject to the RSU Award. As a holder of a RSU Award, a Participant is an unsecured creditor of the Company with respect to the Company's unfunded obligation, if any, to issue shares of Common Stock in settlement of such Award and nothing contained in the Plan or any RSU Agreement, and no action taken pursuant to its provisions, will create or be construed to create a trust of any kind or a fiduciary relationship between a Participant and the Company or an Affiliate or any other person. A Participant will not have voting or any other rights as a stockholder of the Company with respect to any RSU Award (unless and until shares are actually issued in settlement of a vested RSU Award).

(ii) Consideration.

(1) RSA: A Restricted Stock Award may be granted in consideration for (A) cash or check, bank draft or money order payable to the Company, (B) past services to the Company or an Affiliate, or (C) any other form of consideration as the Board may determine and permissible under Applicable Law.

(2) RSU: Unless otherwise determined by the Board at the time of grant, a RSU Award will be granted in consideration for the Participant's services to the Company or an Affiliate, such that the Participant will not be required to make any payment to the Company (other than such services) with respect to the grant or vesting of the RSU Award, or the issuance of any shares of Common Stock pursuant to the RSU Award. If, at the time of grant, the Board determines that any consideration must be paid by the Participant (in a form other than the Participant's services to the Company or an Affiliate) upon the issuance of any shares of Common Stock in settlement of the RSU Award, such consideration may be paid in any form of consideration as the Board may determine and permissible under Applicable Law.

(iii) Vesting. The Board may impose such restrictions on or conditions to the vesting of a Restricted Stock Award or RSU Award as determined by the Board. Except as otherwise provided in the Award Agreement or other written agreement between a Participant and the Company or an Affiliate, vesting of Restricted Stock Awards and RSU Awards will cease upon termination of the Participant's Continuous Service.

(iv) Termination of Continuous Service. Except as otherwise provided in the Award Agreement or other written agreement between a Participant and the Company or an Affiliate, if a Participant's Continuous Service terminates for any reason, (i) the Company may receive through a forfeiture condition or a repurchase right any or all of the shares of Common Stock held by the Participant under his or her Restricted Stock Award that have not vested as of the date of such termination as set forth in the Restricted Stock Award Agreement and (ii) any portion of his or her RSU Award that has not vested will be forfeited upon such termination and the Participant will have no further right, title or interest in the RSU Award, the shares of Common Stock issuable pursuant to the RSU Award, or any consideration in respect of the RSU Award.

(v) Dividends and Dividend Equivalents. Dividends or dividend equivalents may be paid or credited, as applicable, with respect to any shares of Common Stock subject to a Restricted Stock Award or RSU Award, as determined by the Board and specified in the Award Agreement).

(vi) Settlement of RSU Awards. A RSU Award may be settled by the issuance of shares of Common Stock or cash (or any combination thereof) or in any other form of payment, as determined by the Board and specified in the RSU Award Agreement. At the time of grant, the Board may determine to impose such restrictions or conditions that delay such delivery to a date following the vesting of the RSU Award.

(b) Performance Awards. With respect to any Performance Award, the length of any Performance Period, the Performance Goals to be achieved during the Performance Period, the other terms and conditions of such Award, and the measure of whether and to what degree such Performance Goals have been attained will be determined by the Board.

(c) Other Awards. Other Awards may be granted either alone or in addition to Awards provided for under Section 4 and the preceding provisions of this Section 5. Subject to the provisions of the Plan, the Board will have sole and complete discretion to determine the persons to whom and the time or times at which such Other Awards will be granted, the number of shares of Common Stock (or the cash equivalent thereof) to be granted pursuant to such Other Awards and all other terms and conditions of such Other Awards.

6. ADJUSTMENTS UPON CHANGES IN COMMON STOCK; OTHER CORPORATE EVENTS.

(a) Capitalization Adjustments. In the event of a Capitalization Adjustment, the Board shall appropriately and proportionately adjust: (i) the class(es) and maximum number of shares of Common Stock subject to the Plan and the maximum number of shares by which the Share Reserve may annually increase pursuant to Section 2(a), (ii) the class(es) and maximum number of shares that may be issued pursuant to the exercise of Incentive Stock Options pursuant to Section 2(a), and (iii) the class(es) and number of securities and exercise price, strike price or purchase price of Common Stock subject to outstanding Awards. The Board shall make such adjustments, and its determination shall be final, binding and conclusive. Notwithstanding the foregoing, no fractional shares or rights for fractional shares of Common Stock shall be created in order to implement any Capitalization Adjustment. The Board shall determine an equivalent benefit for any fractional shares or fractional shares that might be created by the adjustments referred to in the preceding provisions of this Section.

(b) Dissolution or Liquidation. Except as otherwise provided in the Award Agreement, in the event of a dissolution or liquidation of the Company, all outstanding Awards (other than Awards consisting of vested and outstanding shares of Common Stock not subject to a forfeiture condition or the Company's right of repurchase) will terminate immediately prior to the completion of such dissolution or liquidation, and the shares of Common Stock subject to the Company's repurchase rights or subject to a forfeiture condition may be repurchased or reacquired by the Company notwithstanding the fact that the holder of such Award is providing Continuous Service, provided, however, that the Board may determine to cause some or all Awards to become fully vested, exercisable and/or no longer subject to repurchase or forfeiture (to the extent such Awards have not previously expired or terminated) before the dissolution or liquidation is completed but contingent on its completion.

(c) Corporate Transaction. The following provisions will apply to Awards in the event of a Corporate Transaction except as set forth in Section 11, and unless otherwise provided in the instrument evidencing the Award or any other written agreement between the Company or any Affiliate and the Participant or unless otherwise expressly provided by the Board at the time of grant of an Award.

(i) Awards May Be Assumed. In the event of a Corporate Transaction, any surviving corporation or acquiring corporation (or the surviving or acquiring corporation's parent company) may assume or continue any or all Awards outstanding under the Plan or may substitute similar awards for Awards outstanding under the Plan (including but not limited to, awards to acquire the same consideration paid to the stockholders of the Company pursuant to the Corporate Transaction), and any reacquisition or repurchase rights held by the Company in respect of Common Stock issued pursuant to Awards may be assigned by the Company to the successor of the Company (or the successor's parent company, if any), in connection with such Corporate Transaction. A surviving corporation or acquiring corporation (or its parent) may choose to assume or continue only a portion of an Award or substitute a similar award for only a portion of an Award, or may choose to assume or continue the Awards held by some, but not all Participants. The terms of any assumption, continuation or substitution will be set by the Board.

(ii) Awards Held by Current Participants. In the event of a Corporate Transaction in which the surviving corporation or acquiring corporation (or its parent company) does not assume or continue such outstanding Awards or substitute similar awards for such outstanding Awards, then with respect to Awards that have not been assumed, continued or substituted and that are held by Participants whose Continuous Service has not terminated prior to the effective time of the Corporate Transaction (referred to as the "**Current Participants**"), the vesting of such Awards (and, with respect to Options and Stock Appreciation Rights, the time when such Awards may be exercised) will be accelerated in full to a date prior to the effective time of such Corporate Transaction (contingent upon the effectiveness of the Corporate Transaction) as the Board determines (or, if the Board does not determine such a date, to the date that is five days prior to the effective time of the Corporate Transaction), and such Awards will terminate if not exercised (if applicable) at or prior to the effective time of the Corporate Transaction, and any reacquisition or repurchase rights held by the Company with respect to such Awards will lapse (contingent upon the effectiveness of the Corporate Transaction). With respect to the vesting of Performance Awards that will accelerate upon the occurrence of a Corporate Transaction pursuant to this subsection (ii) and that have multiple vesting levels depending on the level of performance, unless otherwise provided in the Award Agreement, the vesting of such Performance Awards will accelerate at 100% of the target level upon the occurrence of the Corporate Transaction. With respect to the vesting of Awards that will accelerate upon the occurrence of a Corporate Transaction pursuant to this subsection (ii) and are settled in the form of a cash payment, such cash payment will be made no later than 30 days following the occurrence of the Corporate Transaction.

(iii) Awards Held by Persons other than Current Participants. In the event of a Corporate Transaction in which the surviving corporation or acquiring corporation (or its parent company) does not assume or continue such outstanding Awards or substitute similar awards for such outstanding Awards, then with respect to Awards that have not been assumed, continued or substituted and that are held by persons other than Current Participants, such Awards will terminate if not exercised (if applicable) prior to the occurrence of the Corporate Transaction; provided, however, that any reacquisition or repurchase rights held by the Company with respect to such Awards will not terminate and may continue to be exercised notwithstanding the Corporate Transaction.

(iv) Payment for Awards in Lieu of Exercise. Notwithstanding the foregoing, in the event an Award will terminate if not exercised prior to the effective time of a Corporate Transaction, the Board may provide, in its sole discretion, that the holder of such Award may not exercise such Award but will receive a payment, in such form as may be determined by the Board, equal in value, at the effective time, to the excess, if any, of (1) the value of the property the Participant would have received upon the exercise of the Award (including, at the discretion of the Board, any unvested portion of such Award), over (2) any exercise price payable by such holder in connection with such exercise.

(d) Appointment of Stockholder Representative. As a condition to the receipt of an Award under this Plan, a Participant will be deemed to have agreed that the Award will be subject to the terms of any agreement governing a Corporate Transaction involving the Company, including, without limitation, a provision for the appointment of a stockholder representative that is authorized to act on the Participant's behalf with respect to any escrow, indemnities and any contingent consideration.

(e) No Restriction on Right to Undertake Transactions. The grant of any Award under the Plan and the issuance of shares pursuant to any Award does not affect or restrict in any way the right or power of the Company or the stockholders of the Company to make or authorize any adjustment, recapitalization, reorganization or other change in the Company's capital structure or its business, any merger or consolidation of the Company, any issue of stock or of options, rights or options to purchase stock or of bonds, debentures, preferred or prior preference stocks whose rights are superior to or affect the Common Stock or the rights thereof or which are convertible into or exchangeable for Common Stock, or the dissolution or liquidation of the Company, or any sale or transfer of all or any part of its assets or business, or any other corporate act or proceeding, whether of a similar character or otherwise.

7. ADMINISTRATION.

(a) Administration by Board. The Board will administer the Plan unless and until the Board delegates administration of the Plan to a Committee or Committees, as provided in subsection (c) below.

(b) Powers of Board. The Board will have the power, subject to, and within the limitations of, the express provisions of the Plan:

(i) To determine from time to time: (1) which of the persons eligible under the Plan will be granted Awards; (2) when and how each Award will be granted; (3) what type or combination of types of Award will be granted; (4) the provisions of each Award granted (which need not be identical), including the time or times when a person will be permitted to receive an issuance of Common Stock or other payment pursuant to an Award; (5) the number of shares of Common Stock or cash equivalent with respect to which an Award will be granted to each such person; (6) the Fair Market Value applicable to an Award; and (7) the terms of any Performance Award that is not valued in whole or in part by reference to, or otherwise based on, the Common Stock, including the amount of cash payment or other property that may be earned and the timing of payment.

(ii) To construe and interpret the Plan and Awards granted under it, and to establish, amend and revoke rules and regulations for its administration. The Board, in the exercise of this power, may correct any defect, omission or inconsistency in the Plan or in any Award Agreement, in a manner and to the extent it deems necessary or expedient to make the Plan or Award fully effective.

(iii) To settle all controversies regarding the Plan and Awards granted under it.

(iv) To accelerate the time at which an Award may first be exercised or the time during which an Award or any part thereof will vest, notwithstanding the provisions in the Award Agreement stating the time at which it may first be exercised or the time during which it will vest.

(v) To prohibit the exercise of any Option, SAR or other exercisable Award during a period of up to 30 days prior to the consummation of any pending stock dividend, stock split, combination or exchange of shares, merger, consolidation or other distribution (other than normal cash dividends) of Company assets to stockholders, or any other change affecting the shares of Common Stock or the share price of the Common Stock including any Corporate Transaction, for reasons of administrative convenience.

(vi) To suspend or terminate the Plan at any time. Suspension or termination of the Plan will not Materially Impair rights and obligations under any Award granted while the Plan is in effect except with the written consent of the affected Participant.

(vii) To amend the Plan in any respect the Board deems necessary or advisable; provided, however, that stockholder approval will be required for any amendment to the extent required by Applicable Law. Except as provided above, rights under any Award granted before amendment of the Plan will not be Materially Impaired by any amendment of the Plan unless (1) the Company requests the consent of the affected Participant, and (2) such Participant consents in writing.

(viii) To submit any amendment to the Plan for stockholder approval.

(ix) To approve forms of Award Agreements for use under the Plan and to amend the terms of any one or more Awards, including, but not limited to, amendments to provide terms more favorable to the Participant than previously provided in the Award Agreement, subject to any specified limits in the Plan that are not subject to Board discretion; provided however, that, a Participant's rights under any Award will not be Materially Impaired by any such amendment unless (1) the Company requests the consent of the affected Participant, and (2) such Participant consents in writing.

(x) Generally, to exercise such powers and to perform such acts as the Board deems necessary or expedient to promote the best interests of the Company and that are not in conflict with the provisions of the Plan or Awards.

(xi) To adopt such procedures and sub-plans as are necessary or appropriate to permit and facilitate participation in the Plan by, or take advantage of specific tax treatment for Awards granted to, Employees, Directors or Consultants who are foreign nationals or employed outside the United States (provided that Board approval will not be necessary for immaterial modifications to the Plan or any Award Agreement to ensure or facilitate compliance with the laws of the relevant foreign jurisdiction).

(xii) To effect, at any time and from time to time, subject to the consent of any Participant whose Award is Materially Impaired by such action, (1) the reduction of the exercise price (or strike price) of any outstanding Option or SAR; (2) the cancellation of any outstanding Option or SAR and the grant in substitution therefor of (A) a new Option, SAR, Restricted Stock Award, RSU Award or Other Award, under the Plan or another equity plan of the Company, covering the same or a different number of shares of Common Stock, (B) cash and/or (C) other valuable consideration (as determined by the Board); or (3) any other action that is treated as a repricing under generally accepted accounting principles.

(c) Delegation to Committee.

(i) General. The Board may delegate some or all of the administration of the Plan to a Committee or Committees. If administration of the Plan is delegated to a Committee, the Committee will have, in connection with the administration of the Plan, the powers theretofore possessed by the Board that have been delegated to the Committee, including the power to delegate to another Committee or a subcommittee of the Committee any of the administrative powers the Committee is authorized to exercise (and references in this Plan to the Board will thereafter be to the Committee or subcommittee), subject, however, to such resolutions, not inconsistent with the provisions of the Plan, as may be adopted from time to time by the Board. Each Committee may retain the authority to concurrently administer the Plan with Committee or subcommittee to which it has delegated its authority hereunder and may, at any time, revest in such Committee some or all of the powers previously delegated. The Board may retain the authority to concurrently administer the Plan with any Committee and may, at any time, revest in the Board some or all of the powers previously delegated.

(ii) Rule 16b-3 Compliance. To the extent an Award is intended to qualify for the exemption from Section 16(b) of the Exchange Act that is available under Rule 16b-3 of the Exchange Act, the Award will be granted by the Board or a Committee that consists solely of two or more Non-Employee Directors, as determined under Rule 16b-3(b)(3) of the Exchange Act and thereafter any action establishing or modifying the terms of the Award will be approved by the Board or a Committee meeting such requirements to the extent necessary for such exemption to remain available.

(d) Effect of Board's Decision. All determinations, interpretations and constructions made by the Board or any Committee in good faith will not be subject to review by any person and will be final, binding and conclusive on all persons.

(e) Delegation to an Officer. The Board or any Committee may delegate to one or more Officers the authority to do one or both of the following (i) designate Employees who are not Officers to be recipients of Options and SARs (and, to the extent permitted by Applicable Law, other types of Awards) and, to the extent permitted by Applicable Law, the terms thereof, and (ii) determine the number of shares of Common Stock to be subject to such Awards granted to such Employees; provided, however, that the resolutions or charter adopted by the Board or any Committee evidencing such delegation will specify the total number of shares of Common Stock that may be subject to the Awards granted by such Officer and that such Officer may not grant an Award to himself or herself. Any such Awards will be granted on the applicable form of Award Agreement most recently approved for use by the Board or the Committee, unless otherwise provided in the resolutions approving the delegation authority. Notwithstanding anything to the contrary herein, neither the Board nor any Committee may delegate to an Officer who is acting solely in the capacity of an Officer (and not also as a Director) the authority to determine the Fair Market Value.

8. TAX WITHHOLDING.

(a) Withholding Authorization. As a condition to acceptance of any Award under the Plan, a Participant authorizes withholding from payroll and any other amounts payable to such Participant, and otherwise agree to make adequate provision for (including), any sums required to satisfy any U.S. federal, state, local and/or foreign tax or social insurance contribution withholding obligations of the Company or an Affiliate, if any, which arise in connection with the exercise, vesting or settlement of such Award, as applicable. Accordingly, a Participant may not be able to exercise an Award even though the Award is vested, and the Company shall have no obligation to issue shares of Common Stock subject to an Award, unless and until such obligations are satisfied.

(b) Satisfaction of Withholding Obligation. To the extent permitted by the terms of an Award Agreement, the Company may, in its sole discretion, satisfy any U.S. federal, state, local and/or foreign tax or social insurance withholding obligation relating to an Award by any of the following means or by a combination of such means: (i) causing the Participant to tender a cash payment; (ii) withholding shares of Common Stock from the shares of Common Stock issued or otherwise issuable to the Participant in connection with the Award; (iii) withholding cash from an Award settled in cash; (iv) withholding payment from any amounts otherwise payable to the Participant; (v) by allowing a

Participant to effectuate a “cashless exercise” pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board, or (vi) by such other method as may be set forth in the Award Agreement.

(c) No Obligation to Notify or Minimize Taxes; No Liability to Claims. Except as required by Applicable Law the Company has no duty or obligation to any Participant to advise such holder as to the time or manner of exercising such Award. Furthermore, the Company has no duty or obligation to warn or otherwise advise such holder of a pending termination or expiration of an Award or a possible period in which the Award may not be exercised. The Company has no duty or obligation to minimize the tax consequences of an Award to the holder of such Award and will not be liable to any holder of an Award for any adverse tax consequences to such holder in connection with an Award. As a condition to accepting an Award under the Plan, each Participant (i) agrees to not make any claim against the Company, or any of its Officers, Directors, Employees or Affiliates related to tax liabilities arising from such Award or other Company compensation and (ii) acknowledges that such Participant was advised to consult with his or her own personal tax, financial and other legal advisors regarding the tax consequences of the Award and has either done so or knowingly and voluntarily declined to do so. Additionally, each Participant acknowledges any Option or SAR granted under the Plan is exempt from Section 409A only if the exercise or strike price is at least equal to the “fair market value” of the Common Stock on the date of grant as determined by the Internal Revenue Service and there is no other impermissible deferral of compensation associated with the Award. Additionally, as a condition to accepting an Option or SAR granted under the Plan, each Participant agrees not make any claim against the Company, or any of its Officers, Directors, Employees or Affiliates in the event that the Internal Revenue Service asserts that such exercise price or strike price is less than the “fair market value” of the Common Stock on the date of grant as subsequently determined by the Internal Revenue Service.

(d) Withholding Indemnification. As a condition to accepting an Award under the Plan, in the event that the amount of the Company’s and/or its Affiliate’s withholding obligation in connection with such Award was greater than the amount actually withheld by the Company and/or its Affiliates, each Participant agrees to indemnify and hold the Company and/or its Affiliates harmless from any failure by the Company and/or its Affiliates to withhold the proper amount.

9. MISCELLANEOUS.

(a) Source of Shares. The stock issuable under the Plan will be shares of authorized but unissued or reacquired Common Stock, including shares repurchased by the Company on the open market or otherwise.

(b) Use of Proceeds from Sales of Common Stock. Proceeds from the sale of shares of Common Stock pursuant to Awards will constitute general funds of the Company.

(c) Corporate Action Constituting Grant of Awards. Corporate action constituting a grant by the Company of an Award to any Participant will be deemed completed as of the date of such corporate action, unless otherwise determined by the Board, regardless of when the instrument, certificate, or letter evidencing the Award is communicated to, or actually received or accepted by, the Participant. In the event that the corporate records (e.g., Board consents, resolutions or minutes) documenting the corporate action approving the grant contain terms (e.g., exercise price, vesting schedule or number of shares) that are inconsistent with those in the Award Agreement or related grant documents as a result of a clerical error in the Award Agreement or related grant documents, the corporate records will control and the Participant will have no legally binding right to the incorrect term in the Award Agreement or related grant documents.

(d) Stockholder Rights. No Participant will be deemed to be the holder of, or to have any of the rights of a holder with respect to, any shares of Common Stock subject to such Award unless and until (i) such Participant has satisfied all requirements for exercise of the Award pursuant to its terms, if applicable, and (ii) the issuance of the Common Stock subject to such Award is reflected in the records of the Company.

(e) No Employment or Other Service Rights. Nothing in the Plan, any Award Agreement or any other instrument executed thereunder or in connection with any Award granted pursuant thereto will confer upon any Participant any right to continue to serve the Company or an Affiliate in the capacity in effect at the time the Award was granted or affect the right of the Company or an Affiliate to terminate at will and without regard to any future vesting opportunity that a Participant may have with respect to any Award (i) the employment of an Employee with or without notice and with or without cause, (ii) the service of a Consultant pursuant to the terms of such Consultant's agreement with the Company or an Affiliate, or (iii) the service of a Director pursuant to the Bylaws of the Company or an Affiliate, and any applicable provisions of the corporate law of the state or foreign jurisdiction in which the Company or the Affiliate is incorporated, as the case may be. Further, nothing in the Plan, any Award Agreement or any other instrument executed thereunder or in connection with any Award will constitute any promise or commitment by the Company or an Affiliate regarding the fact or nature of future positions, future work assignments, future compensation or any other term or condition of employment or service or confer any right or benefit under the Award or the Plan unless such right or benefit has specifically accrued under the terms of the Award Agreement and/or Plan.

(f) Change in Time Commitment. In the event a Participant's regular level of time commitment in the performance of his or her services for the Company and any Affiliates is reduced (for example, and without limitation, if the Participant is an Employee of the Company and the Employee has a change in status from a full-time Employee to a part-time Employee or takes an extended leave of absence) after the date of grant of any Award to the Participant, the Board may determine, to the extent permitted by Applicable Law, to (i) make a corresponding reduction in the number of shares or cash amount subject to any portion of such Award that is scheduled to vest or become payable after the date of such change in time commitment, and (ii) in lieu of or in combination with such a reduction, extend the vesting or payment schedule applicable to such Award. In the event of any such reduction, the Participant will have no right with respect to any portion of the Award that is so reduced or extended.

(g) Execution of Additional Documents. As a condition to accepting an Award under the Plan, the Participant agrees to execute any additional documents or instruments necessary or desirable, as determined in the Plan Administrator's sole discretion, to carry out the purposes or intent of the Award, or facilitate compliance with securities and/or other regulatory requirements, in each case at the Plan Administrator's request.

(h) Electronic Delivery and Participation. Any reference herein or in an Award Agreement to a "written" agreement or document will include any agreement or document delivered electronically, filed publicly at www.sec.gov (or any successor website thereto) or posted on the Company's intranet (or other shared electronic medium controlled by the Company to which the Participant has access). By accepting any Award the Participant consents to receive documents by electronic delivery and to participate in the Plan through any on-line electronic system established and maintained by the Plan Administrator or another third party selected by the Plan Administrator. The form of delivery of any Common Stock (e.g., a stock certificate or electronic entry evidencing such shares) shall be determined by the Company.

(i) Clawback/Recovery. All Awards granted under the Plan will be subject to recoupment in accordance with any clawback policy that the Company is required to adopt pursuant to the listing standards of any national securities exchange or association on which the Company's securities are listed or as is otherwise required by the Dodd-Frank Wall Street Reform and Consumer Protection Act or other Applicable Law and any clawback policy that the Company otherwise adopts, to the extent applicable and permissible under Applicable Law. In addition, the Board may impose such other clawback, recovery or recoupment provisions in an Award Agreement as the Board determines necessary or appropriate, including but not limited to a reacquisition right in respect of previously acquired shares of Common Stock or other cash or property upon the occurrence of Cause. No recovery of compensation under such a clawback policy will be an event giving rise to a Participant's right to voluntary terminate employment upon a "resignation for good reason," or for a "constructive termination" or any similar term under any plan of or agreement with the Company.

(j) Securities Law Compliance. A Participant will not be issued any shares in respect of an Award unless either (i) the shares are registered under the Securities Act; or (ii) the Company has determined that such issuance would be exempt from the registration requirements of the Securities Act. Each Award also must comply with other Applicable Law governing the Award, and a Participant will not receive such shares if the Company determines that such receipt would not be in material compliance with Applicable Law.

(k) Transfer or Assignment of Awards; Issued Shares. Except as expressly provided in the Plan or the form of Award Agreement, Awards granted under the Plan may not be transferred or assigned by the Participant. After the vested shares subject to an Award have been issued, or in the case of Restricted Stock and similar awards, after the issued shares have vested, the holder of such shares is free to assign, hypothecate, donate, encumber or otherwise dispose of any interest in such shares provided that any such actions are in compliance with the provisions herein, the terms of the Trading Policy and Applicable Law.

(l) Effect on Other Employee Benefit Plans. The value of any Award granted under the Plan, as determined upon grant, vesting or settlement, shall not be included as compensation, earnings, salaries, or other similar terms used when calculating any Participant's benefits under any employee benefit plan sponsored by the Company or any Affiliate, except as such plan otherwise expressly provides. The Company expressly reserves its rights to amend, modify, or terminate any of the Company's or any Affiliate's employee benefit plans.

(m) Deferrals. To the extent permitted by Applicable Law, the Board, in its sole discretion, may determine that the delivery of Common Stock or the payment of cash, upon the exercise, vesting or settlement of all or a portion of any Award may be deferred and may also establish programs and procedures for deferral elections to be made by Participants. Deferrals by will be made in accordance with the requirements of Section 409A.

(n) Section 409A. Unless otherwise expressly provided for in an Award Agreement, the Plan and Award Agreements will be interpreted to the greatest extent possible in a manner that makes the Plan and the Awards granted hereunder exempt from Section 409A, and, to the extent not so exempt, in compliance with the requirements of Section 409A. If the Board determines that any Award granted hereunder is not exempt from and is therefore subject to Section 409A, the Award Agreement evidencing such Award will incorporate the terms and conditions necessary to avoid the consequences specified in Section 409A(a)(1) of the Code, and to the extent an Award Agreement is silent on terms necessary for compliance, such terms are hereby incorporated by reference into the Award Agreement. Notwithstanding anything to the contrary in this Plan (and unless the Award Agreement specifically provides otherwise), if the shares of Common Stock are publicly traded, and if a Participant holding an Award that constitutes "deferred compensation" under Section 409A is a "specified employee" for purposes of Section 409A, no distribution or payment of any amount that is due because of a "separation from service" (as defined in Section 409A without regard to alternative definitions thereunder) will be issued or paid before the date that is six months and one day following the date of such Participant's "separation from service" or, if earlier, the date of the Participant's death, unless such distribution or payment can be made in a manner that complies with Section 409A, and any amounts so deferred will be paid in a lump sum on the day after such six month period elapses, with the balance paid thereafter on the original schedule.

(o) Choice of Law. This Plan and any controversy arising out of or relating to this Plan shall be governed by, and construed in accordance with, the internal laws of the State of Delaware, without regard to conflict of law principles that would result in any application of any law other than the law of the State of Delaware.

10. COVENANTS OF THE COMPANY.

(a) Compliance with Law. The Company will seek to obtain from each regulatory commission or agency, as may be deemed to be necessary, having jurisdiction over the Plan such authority as may be required to grant Awards and to issue and sell shares of Common Stock upon exercise or vesting of the Awards; provided, however, that this undertaking will not require the Company to register under the Securities Act the Plan, any Award or any Common Stock issued or issuable pursuant to any such Award. If, after reasonable efforts and at a reasonable cost, the Company is unable to obtain from any such regulatory commission or agency the authority that counsel for the Company deems necessary or advisable for the lawful issuance and sale of Common Stock under the Plan, the Company will be relieved from any liability for failure to issue and sell Common Stock upon exercise or vesting of such Awards unless and until such authority is obtained. A Participant is not eligible for the grant of an Award or the subsequent issuance of Common Stock pursuant to the Award if such grant or issuance would be in violation of any Applicable Law.

11. ADDITIONAL RULES FOR AWARDS SUBJECT TO SECTION 409A.

(a) Application. Unless the provisions of this Section of the Plan are expressly superseded by the provisions in the form of Award Agreement, the provisions of this Section shall apply and shall supersede anything to the contrary set forth in the Award Agreement for a Non-Exempt Award.

(b) Non-Exempt Awards Subject to Non-Exempt Severance Arrangements. To the extent a Non-Exempt Award is subject to Section 409A due to application of a Non-Exempt Severance Arrangement, the following provisions of this subsection (b) apply.

(i) If the Non-Exempt Award vests in the ordinary course during the Participant's Continuous Service in accordance with the vesting schedule set forth in the Award Agreement, and does not accelerate vesting under the terms of a Non-Exempt Severance Arrangement, in no event will the shares be issued in respect of such Non-Exempt Award any later than the later of: (i) December 31st of the calendar year that includes the applicable vesting date, or (ii) the 60th day that follows the applicable vesting date.

(ii) If vesting of the Non-Exempt Award accelerates under the terms of a Non-Exempt Severance Arrangement in connection with the Participant's Separation from Service, and such vesting acceleration provisions were in effect as of the date of grant of the Non-Exempt Award and, therefore, are part of the terms of such Non-Exempt Award as of the date of grant, then the shares will be earlier issued in settlement of such Non-Exempt Award upon the Participant's Separation from Service in accordance with the terms of the Non-Exempt Severance Arrangement, but in no event later than the 60th day that follows the date of the Participant's Separation from Service. However, if at the time the shares would otherwise be issued the Participant is subject to the distribution limitations contained in Section 409A applicable to "specified employees," as defined in Section 409A(a)(2)(B)(i) of the Code, such shares shall not be issued before the date that is six months following the date of such Participant's Separation from Service, or, if earlier, the date of the Participant's death that occurs within such six month period.

(iii) If vesting of a Non-Exempt Award accelerates under the terms of a Non-Exempt Severance Arrangement in connection with a Participant's Separation from Service, and such vesting acceleration provisions were not in effect as of the date of grant of the Non-Exempt Award and, therefore, are not a part of the terms of such Non-Exempt Award on the date of grant, then such acceleration of vesting of the Non-Exempt Award shall not accelerate the issuance date of the shares, but the shares shall instead be issued on the same schedule as set forth in the Grant Notice as if they had vested in the ordinary course during the Participant's Continuous Service, notwithstanding the vesting acceleration of the Non-Exempt Award. Such issuance schedule is intended to satisfy the requirements of payment on a specified date or pursuant to a fixed schedule, as provided under Treasury Regulations Section 1.409A-3(a)(4).

(c) Treatment of Non-Exempt Awards Upon a Corporate Transaction for Employees and Consultants. The provisions of this subsection (c) shall apply and shall supersede anything to the contrary set forth in the Plan with respect to the permitted treatment of any Non-Exempt Award in connection with a Corporate Transaction if the Participant was either an Employee or Consultant upon the applicable date of grant of the Non-Exempt Award.

(i) Vested Non-Exempt Awards. The following provisions shall apply to any Vested Non-Exempt Award in connection with a Corporate Transaction:

(1) If the Corporate Transaction is also a Section 409A Change in Control then the Acquiring Entity may not assume, continue or substitute the Vested Non-Exempt Award. Upon the Section 409A Change in Control the settlement of the Vested Non-Exempt Award will automatically be accelerated and the shares will be immediately issued in respect of the Vested Non-Exempt Award. Alternatively, the Company may instead provide that the Participant will receive a cash settlement equal to the Fair Market Value of the shares that would otherwise be issued to the Participant upon the Section 409A Change in Control.

(2) If the Corporate Transaction is not also a Section 409A Change in Control, then the Acquiring Entity must either assume, continue or substitute each Vested Non-Exempt Award. The shares to be issued in respect of the Vested Non-Exempt Award shall be issued to the Participant by the Acquiring Entity on the same schedule that the shares would have been issued to the Participant if the Corporate Transaction had not occurred. In the Acquiring Entity's discretion, in lieu of an issuance of shares, the Acquiring Entity may instead substitute a cash payment on each applicable issuance date, equal to the Fair Market Value of the shares that would otherwise be issued to the

Participant on such issuance dates, with the determination of the Fair Market Value of the shares made on the date of the Corporate Transaction.

(ii) Unvested Non-Exempt Awards. The following provisions shall apply to any Unvested Non-Exempt Award unless otherwise determined by the Board pursuant to subsection (e) of this Section.

(1) In the event of a Corporate Transaction, the Acquiring Entity shall assume, continue or substitute any Unvested Non-Exempt Award. Unless otherwise determined by the Board, any Unvested Non-Exempt Award will remain subject to the same vesting and forfeiture restrictions that were applicable to the Award prior to the Corporate Transaction. The shares to be issued in respect of any Unvested Non-Exempt Award shall be issued to the Participant by the Acquiring Entity on the same schedule that the shares would have been issued to the Participant if the Corporate Transaction had not occurred. In the Acquiring Entity's discretion, in lieu of an issuance of shares, the Acquiring Entity may instead substitute a cash payment on each applicable issuance date, equal to the Fair Market Value of the shares that would otherwise be issued to the Participant on such issuance dates, with the determination of Fair Market Value of the shares made on the date of the Corporate Transaction.

(2) If the Acquiring Entity will not assume, substitute or continue any Unvested Non-Exempt Award in connection with a Corporate Transaction, then such Award shall automatically terminate and be forfeited upon the Corporate Transaction with no consideration payable to any Participant in respect of such forfeited Unvested Non-Exempt Award. Notwithstanding the foregoing, to the extent permitted and in compliance with the requirements of Section 409A, the Board may in its discretion determine to elect to accelerate the vesting and settlement of the Unvested Non-Exempt Award upon the Corporate Transaction, or instead substitute a cash payment equal to the Fair Market Value of such shares that would otherwise be issued to the Participant, as further provided in subsection (e)(ii) below. In the absence of such discretionary election by the Board, any Unvested Non-Exempt Award shall be forfeited without payment of any consideration to the affected Participants if the Acquiring Entity will not assume, substitute or continue the Unvested Non-Exempt Awards in connection with the Corporate Transaction.

(3) The foregoing treatment shall apply with respect to all Unvested Non-Exempt Awards upon any Corporate Transaction, and regardless of whether or not such Corporate Transaction is also a Section 409A Change in Control.

(d) Treatment of Non-Exempt Awards Upon a Corporate Transaction for Non-Employee Directors. The following provisions of this subsection (d) shall apply and shall supersede anything to the contrary that may be set forth in the Plan with respect to the permitted treatment of a Non-Exempt Director Award in connection with a Corporate Transaction.

(i) If the Corporate Transaction is also a Section 409A Change in Control then the Acquiring Entity may not assume, continue or substitute the Non-Exempt Director Award. Upon the Section 409A Change in Control the vesting and settlement of any Non-Exempt Director Award will automatically be accelerated and the shares will be immediately issued to the Participant in respect of the Non-Exempt Director Award. Alternatively, the Company may provide that the Participant will instead receive a cash settlement equal to the Fair Market Value of the shares that would otherwise be issued to the Participant upon the Section 409A Change in Control pursuant to the preceding provision.

(ii) If the Corporate Transaction is not also a Section 409A Change in Control, then the Acquiring Entity must either assume, continue or substitute the Non-Exempt Director Award. Unless otherwise determined by the Board, the Non-Exempt Director Award will remain subject to the same vesting and forfeiture restrictions that were applicable to the Award prior to the Corporate Transaction. The shares to be issued in respect of the Non-Exempt Director Award shall be issued to the Participant by the Acquiring Entity on the same schedule that the shares would have been issued to the Participant if the Corporate Transaction had not occurred. In the Acquiring Entity's discretion, in lieu of an issuance of shares, the Acquiring Entity may instead substitute a cash payment on each applicable issuance date, equal to the Fair Market Value of the shares that would otherwise be issued to the Participant on such issuance dates, with the determination of Fair Market Value made on the date of the Corporate Transaction.

(e) If the RSU Award is a Non-Exempt Award, then the provisions in this Section 11(e) shall apply and supersede anything to the contrary that may be set forth in the Plan or the Award Agreement with respect to the permitted treatment of such Non-Exempt Award:

(i) Any exercise by the Board of discretion to accelerate the vesting of a Non-Exempt Award shall not result in any acceleration of the scheduled issuance dates for the shares in respect of the Non-Exempt Award unless earlier issuance of the shares upon the applicable vesting dates would be in compliance with the requirements of Section 409A.

(ii) The Company explicitly reserves the right to earlier settle any Non-Exempt Award to the extent permitted and in compliance with the requirements of Section 409A, including pursuant to any of the exemptions available in Treasury Regulations Section 1.409A-3(j)(4)(ix).

(iii) To the extent the terms of any Non-Exempt Award provide that it will be settled upon a Change in Control or Corporate Transaction, to the extent it is required for compliance with the requirements of Section 409A, the Change in Control or Corporate Transaction event triggering settlement must also constitute a Section 409A Change in Control. To the extent the terms of a Non-Exempt Award provides that it will be settled upon a termination of employment or termination of Continuous Service, to the extent it is required for compliance with the requirements of Section 409A, the termination event triggering settlement must also constitute a Separation From Service. However, if at the time the shares would otherwise be issued to a Participant in connection with a "separation from service" such Participant is subject to the distribution limitations contained in Section 409A applicable to "specified employees," as defined in Section 409A(a)(2)(B)(i) of the Code, such shares shall not be issued before the date that is six months following the date of the Participant's Separation From Service, or, if earlier, the date of the Participant's death that occurs within such six month period.

(iv) The provisions in this subsection (e) for delivery of the shares in respect of the settlement of a RSU Award that is a Non-Exempt Award are intended to comply with the requirements of Section 409A so that the delivery of the shares to the Participant in respect of such Non-Exempt Award will not trigger the additional tax imposed under Section 409A, and any ambiguities herein will be so interpreted.

12. SEVERABILITY.

If all or any part of the Plan or any Award Agreement is declared by any court or governmental authority to be unlawful or invalid, such unlawfulness or invalidity shall not invalidate any portion of the Plan or such Award Agreement not declared to be unlawful or invalid. Any Section of the Plan or any

Award Agreement (or part of such a Section) so declared to be unlawful or invalid shall, if possible, be construed in a manner which will give effect to the terms of such Section or part of a Section to the fullest extent possible while remaining lawful and valid.

13. TERMINATION OF THE PLAN.

The Board may suspend or terminate the Plan at any time. No Incentive Stock Options may be granted after the tenth anniversary of the earlier of: (i) the Adoption Date, or (ii) the date the Plan is approved by the Company's stockholders. No Awards may be granted under the Plan while the Plan is suspended or after it is terminated.

14. DEFINITIONS.

As used in the Plan, the following definitions apply to the capitalized terms indicated below:

(a) "***Acquiring Entity***" means the surviving or acquiring corporation (or its parent company) in connection with a Corporate Transaction.

(b) "***Adoption Date***" means the date the Plan is first approved by the Board or Compensation Committee.

(c) "***Affiliate***" means, at the time of determination, any "parent" or "subsidiary" of the Company as such terms are defined in Rule 405 promulgated under the Securities Act. The Board may determine the time or times at which "parent" or "subsidiary" status is determined within the foregoing definition.

(d) "***Applicable Law***" means shall mean any applicable securities, federal, state, foreign, material local or municipal or other law, statute, constitution, principle of common law, resolution, ordinance, code, edict, decree, rule, listing rule, regulation, judicial decision, ruling or requirement issued, enacted, adopted, promulgated, implemented or otherwise put into effect by or under the authority of any Governmental Body (including under the authority of any applicable self-regulating organization such as the Nasdaq Stock Market, New York Stock Exchange, or the Financial Industry Regulatory Authority).

(e) "***Award***" means any right to receive Common Stock, cash or other property granted under the Plan (including an Incentive Stock Option, a Nonstatutory Stock Option, a Restricted Stock Award, a RSU Award, a SAR, a Performance Award or any Other Award).

(f) "***Award Agreement***" means a written agreement between the Company and a Participant evidencing the terms and conditions of an Award. The Award Agreement generally consists of the Grant Notice and the agreement containing the written summary of the general terms and conditions applicable to the Award and which is provided to a Participant along with the Grant Notice.

(g) "***Board***" means the Board of Directors of the Company (or its designee). Any decision or determination made by the Board shall be a decision or determination that is made in the sole discretion of the Board (or its designee), and such decision or determination shall be final and binding on all Participants.

(h) "***Capitalization Adjustment***" means any change that is made in, or other events that occur with respect to, the Common Stock subject to the Plan or subject to any Award after the Effective Date without the receipt of consideration by the Company through merger, consolidation, reorganization, recapitalization, reincorporation, stock dividend, dividend in property other than cash, large nonrecurring cash dividend, stock split, reverse stock split, liquidating dividend, combination of shares, exchange of shares, change in corporate structure or any similar equity restructuring transaction, as that term is used in Statement of Financial Accounting Standards Board Accounting Standards Codification Topic 718 (or any successor thereto). Notwithstanding the foregoing, the conversion of any convertible securities of the Company will not be treated as a Capitalization Adjustment.

(i) "***Cause***" has the meaning ascribed to such term in any written agreement between the Participant and the Company defining such term and, in the absence of such agreement, such term means, with respect to a Participant, the occurrence of any of the following events: (i) such Participant's attempted commission of, or participation in, a fraud or act of dishonesty against the Company; (ii) such Participant's intentional, material violation of any contract or agreement between the Participant and the Company or of any statutory duty owed to the Company; (iii) such Participant's unauthorized use or disclosure of the Company's confidential information or trade secrets; or (iv) such Participant's gross misconduct. The determination that a termination of the Participant's Continuous Service is either for Cause or without Cause will be made by the Board with respect to Participants who are executive officers of the Company and by the Company's Chief Executive Officer with respect to Participants who are not executive officers of the Company. Any determination by the Company that the Continuous Service of a Participant was terminated with or without Cause for the purposes of outstanding Awards held by such Participant will have no effect upon any determination of the rights or obligations of the Company or such Participant for any other purpose.

(j) "***Change in Control***" means the occurrence, in a single transaction or in a series of related transactions, of any one or more of the following events; provided, however, to the extent necessary to avoid adverse personal income tax consequences to the Participant in connection with an Award, also constitutes a Section 409A Change in Control:

(i) any Exchange Act Person becomes the Owner, directly or indirectly, of securities of the Company representing more than 50% of the combined voting power of the Company's then outstanding securities other than by virtue of a merger, consolidation or similar transaction. Notwithstanding the foregoing, a Change in Control shall not be deemed to occur (A) on account of the acquisition of securities of the Company directly from the Company, (B) on account of the acquisition of securities of the Company by an investor, any affiliate thereof or any other Exchange Act Person that acquires the Company's securities in a transaction or series of related transactions the primary purpose of which is to obtain financing for the Company through the issuance of equity securities, or (C) solely because the level of Ownership held by any Exchange Act Person (the "***Subject Person***") exceeds the designated percentage threshold of the outstanding voting securities as a result of a repurchase or other acquisition of voting securities by the Company reducing the number of shares outstanding, provided that if a Change in Control would occur (but for the operation of this sentence) as a result of the acquisition of voting securities by the Company, and after such share acquisition, the Subject Person becomes the Owner of any additional voting securities that, assuming the repurchase or other acquisition had not occurred, increases the percentage of the then outstanding voting securities Owned by the Subject Person over the designated percentage threshold, then a Change in Control shall be deemed to occur;

(ii) there is consummated a merger, consolidation or similar transaction involving (directly or indirectly) the Company and, immediately after the consummation of such merger, consolidation or similar transaction, the stockholders of the Company immediately prior thereto do not Own, directly or indirectly, either (A) outstanding voting securities representing more than 50% of the combined outstanding voting power of the surviving Entity in such merger, consolidation or similar transaction or (B) more than 50% of the combined outstanding voting power of the parent of the surviving Entity in such merger, consolidation or similar transaction, in each case in substantially the same proportions as their Ownership of the outstanding voting securities of the Company immediately prior to such transaction;

(iii) the stockholders of the Company approve or the Board approves a plan of complete dissolution or liquidation of the Company, or a complete dissolution or liquidation of the Company shall otherwise occur, except for a liquidation into a parent corporation;

(iv) there is consummated a sale, lease, exclusive license or other disposition of all or substantially all of the consolidated assets of the Company and its Subsidiaries, other than a sale, lease, license or other disposition of all or substantially all of the consolidated assets of the Company and its Subsidiaries to an Entity, more than 50% of the combined voting power of the voting securities of which are Owned by stockholders of the Company in substantially the same proportions as their Ownership of the outstanding voting securities of the Company immediately prior to such sale, lease, license or other disposition; or

(v) individuals who, on the date the Plan is adopted by the Board, are members of the Board (the "***Incumbent Board***") cease for any reason to constitute at least a majority of the members of the Board; provided, however, that if the appointment or election (or nomination for election) of any new Board member was approved or recommended by a majority vote of the members of the Incumbent Board then still in office, such new member shall, for purposes of this Plan, be considered as a member of the Incumbent Board.

Notwithstanding the foregoing or any other provision of this Plan, (A) the term Change in Control shall not include a sale of assets, merger or other transaction effected exclusively for the purpose of changing the domicile of the Company, and (B) the definition of Change in Control (or any analogous term) in an individual written agreement between the Company or any Affiliate and the Participant shall supersede the foregoing definition with respect to Awards subject to such agreement; provided, however, that if no definition of Change in Control or any analogous term is set forth in such an individual written agreement, the foregoing definition shall apply.

(k) "***Code***" means the Internal Revenue Code of 1986, as amended, including any applicable regulations and guidance thereunder.

(l) "***Committee***" means the Compensation Committee and any other committee of one or more Directors to whom authority has been delegated by the Board or Compensation Committee in accordance with the Plan.

(m) "***Common Stock***" means the common stock of the Company.

(n) "***Company***" means Pulmonx Corporation, a Delaware corporation.

(o) "***Compensation Committee***" means the Compensation Committee of the Board.

(p) "***Consultant***" means any person, including an advisor, who is (i) engaged by the Company or an Affiliate to render consulting or advisory services and is compensated for such services, or (ii) serving as a member of the board of directors of an Affiliate and is compensated for such services. However, service solely as a Director, or payment of a fee for such service, will not cause a Director to be considered a “Consultant” for purposes of the Plan. Notwithstanding the foregoing, a person is treated as a Consultant under this Plan only if a Form S-8 Registration Statement under the Securities Act is available to register either the offer or the sale of the Company’s securities to such person.

(q) “***Continuous Service***” means that the Participant’s service with the Company or an Affiliate, whether as an Employee, Director or Consultant, is not interrupted or terminated. A change in the capacity in which the Participant renders service to the Company or an Affiliate as an Employee, Director or Consultant or a change in the Entity for which the Participant renders such service, provided that there is no interruption or termination of the Participant’s service with the Company or an Affiliate, will not terminate a Participant’s Continuous Service; provided, however, that if the Entity for which a Participant is rendering services ceases to qualify as an Affiliate, as determined by the Board, such Participant’s Continuous Service will be considered to have terminated on the date such Entity ceases to qualify as an Affiliate. For example, a change in status from an Employee of the Company to a Consultant of an Affiliate or to a Director will not constitute an interruption of Continuous Service. To the extent permitted by law, the Board or the chief executive officer of the Company, in that party’s sole discretion, may determine whether Continuous Service will be considered interrupted in the case of (i) any leave of absence approved by the Board or chief executive officer, including sick leave, military leave or any other personal leave, or (ii) transfers between the Company, an Affiliate, or their successors. Notwithstanding the foregoing, a leave of absence will be treated as Continuous Service for purposes of vesting in an Award only to such extent as may be provided in the Company’s leave of absence policy, in the written terms of any leave of absence agreement or policy applicable to the Participant, or as otherwise required by law. In addition, to the extent required for exemption from or compliance with Section 409A, the determination of whether there has been a termination of Continuous Service will be made, and such term will be construed, in a manner that is consistent with the definition of “separation from service” as defined under Treasury Regulation Section 1.409A-1(h) (without regard to any alternative definition thereunder).

(r) “***Corporate Transaction***” means the consummation, in a single transaction or in a series of related transactions, of any one or more of the following events:

(i) a sale or other disposition of all or substantially all, as determined by the Board, of the consolidated assets of the Company and its Subsidiaries;

(ii) a sale or other disposition of at least 50% of the outstanding securities of the Company;

(iii) a merger, consolidation or similar transaction following which the Company is not the surviving corporation; or

(iv) a merger, consolidation or similar transaction following which the Company is the surviving corporation but the shares of Common Stock outstanding immediately preceding the merger, consolidation or similar transaction are converted or exchanged by virtue of the merger, consolidation or similar transaction into other property, whether in the form of securities, cash or otherwise.

(s) “***Director***” means a member of the Board.

(t) “***determine***” ***or*** “***determined***” means as determined by the Board or the Committee (or its designee) in its sole discretion.

(u) "***Disability***" means, with respect to a Participant, such Participant is unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or which has lasted or can be expected to last for a continuous period of not less than 12 months, as provided in Section 22(e)(3) of the Code, and will be determined by the Board on the basis of such medical evidence as the Board deems warranted under the circumstances.

(v) "***Effective Date***" means the IPO Date, provided this Plan is approved by the Company's stockholders prior to the IPO Date.

(w) "***Employee***" means any person employed by the Company or an Affiliate. However, service solely as a Director, or payment of a fee for such services, will not cause a Director to be considered an "Employee" for purposes of the Plan.

(x) "***Employer***" means the Company or the Affiliate of the Company that employs the Participant.

(y) "***Entity***" means a corporation, partnership, limited liability company or other entity.

(z) "***Exchange Act***" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

(aa) "***Exchange Act Person***" means any natural person, Entity or "group" (within the meaning of Section 13(d) or 14(d) of the Exchange Act), except that "Exchange Act Person" will not include (i) the Company or any Subsidiary of the Company, (ii) any employee benefit plan of the Company or any Subsidiary of the Company or any trustee or other fiduciary holding securities under an employee benefit plan of the Company or any Subsidiary of the Company, (iii) an underwriter temporarily holding securities pursuant to a registered public offering of such securities, (iv) an Entity Owned, directly or indirectly, by the stockholders of the Company in substantially the same proportions as their Ownership of stock of the Company; or (v) any natural person, Entity or "group" (within the meaning of Section 13(d) or 14(d) of the Exchange Act) that, as of the Effective Date, is the Owner, directly or indirectly, of securities of the Company representing more than 50% of the combined voting power of the Company's then outstanding securities.

(bb) "***Fair Market Value***" means, as of any date, unless otherwise determined by the Board, the value of the Common Stock (as determined on a per share or aggregate basis, as applicable) determined as follows:

(i) If the Common Stock is listed on any established stock exchange or traded on any established market, the Fair Market Value will be the closing sales price for such stock as quoted on such exchange or market (or the exchange or market with the greatest volume of trading in the Common Stock) on the date of determination, as reported in a source the Board deems reliable.

(ii) If there is no closing sales price for the Common Stock on the date of determination, then the Fair Market Value will be the closing selling price on the last preceding date for which such quotation exists.

(iii) In the absence of such markets for the Common Stock, or if otherwise determined by the Board, the Fair Market Value will be determined by the Board in good faith and in a manner that complies with Sections 409A and 422 of the Code.

(cc) "***Governmental Body***" means any: (a) nation, state, commonwealth, province, territory, county, municipality, district or other jurisdiction of any nature; (b) federal, state, local, municipal, foreign or other government; (c) governmental or regulatory body, or quasi-governmental body of any nature (including any governmental division, department, administrative agency or bureau, commission, authority, instrumentality, official, ministry, fund, foundation, center, organization, unit, body or Entity and any court or other tribunal, and for the avoidance of doubt, any Tax authority) or other body exercising similar powers or authority; or (d) self-regulatory organization (including the Nasdaq Stock Market, New York Stock Exchange, and the Financial Industry Regulatory Authority).

(dd) "***Grant Notice***" means the notice provided to a Participant that he or she has been granted an Award under the Plan and which includes the name of the Participant, the type of Award, the date of grant of the Award, number of shares of Common Stock subject to the Award or potential cash payment right, (if any), the vesting schedule for the Award (if any) and other key terms applicable to the Award.

(ee) "***Incentive Stock Option***" means an option granted pursuant to Section 4 of the Plan that is intended to be, and qualifies as, an "incentive stock option" within the meaning of Section 422 of the Code.

(ff) "***IPO Date***" means the date of the underwriting agreement between the Company and the underwriter(s) managing the initial public offering of the Common Stock, pursuant to which the Common Stock is priced for the initial public offering.

(gg) "***Materially Impair***" means any amendment to the terms of the Award that materially adversely affects the Participant's rights under the Award. A Participant's rights under an Award will not be deemed to have been Materially Impaired by any such amendment if the Board, in its sole discretion, determines that the amendment, taken as a whole, does not materially impair the Participant's rights. For example, the following types of amendments to the terms of an Award do not Materially Impair the Participant's rights under the Award: (i) imposition of reasonable restrictions on the minimum number of shares subject to an Option that may be exercised, (ii) to maintain the qualified status of the Award as an Incentive Stock Option under Section 422 of the Code; (iii) to change the terms of an Incentive Stock Option in a manner that disqualifies, impairs or otherwise affects the qualified status of the Award as an Incentive Stock Option under Section 422 of the Code; (iv) to clarify the manner of exemption from, or to bring the Award into compliance with or qualify it for an exemption from, Section 409A; or (v) to comply with other Applicable Laws.

(hh) "***Non-Employee Director***" means a Director who either (i) is not a current employee or officer of the Company or an Affiliate, does not receive compensation, either directly or indirectly, from the Company or an Affiliate for services rendered as a consultant or in any capacity other than as a Director (except for an amount as to which disclosure would not be required under Item 404(a) of Regulation S-K promulgated pursuant to the Securities Act ("***Regulation S-K***")), does not possess an interest in any other transaction for which disclosure would be required under Item 404(a) of Regulation S-K, and is not engaged in a business relationship for which disclosure would be required pursuant to Item 404(b) of Regulation S-K; or (ii) is otherwise considered a "non-employee director" for purposes of Rule 16b-3.

(ii) "***Non-Exempt Award***" means any Award that is subject to, and not exempt from, Section 409A, including as the result of (i) a deferral of the issuance of the shares subject to the Award which is elected by the Participant or imposed by the Company or (ii) the terms of any Non-Exempt Severance Agreement.

(jj) "***Non-Exempt Director Award***" means a Non-Exempt Award granted to a Participant who was a Director but not an Employee on the applicable grant date.

(kk) ***Non-Exempt Severance Arrangement*** means a severance arrangement or other agreement between the Participant and the Company that provides for acceleration of vesting of an Award and issuance of the shares in respect of such Award upon the Participant's termination of employment or separation from service (as such term is defined in Section 409A(a)(2)(A)(i) of the Code (and without regard to any alternative definition thereunder) ("***Separation from Service***") and such severance benefit does not satisfy the requirements for an exemption from application of Section 409A provided under Treasury Regulations Section 1.409A-1(b)(4), 1.409A-1(b)(9) or otherwise.

(ll) "***Nonstatutory Stock Option***" means any option granted pursuant to Section 4 of the Plan that does not qualify as an Incentive Stock Option.

(mm) "***Officer***" means a person who is an officer of the Company within the meaning of Section 16 of the Exchange Act.

(nn) "***Option***" means an Incentive Stock Option or a Nonstatutory Stock Option to purchase shares of Common Stock granted pursuant to the Plan.

(oo) "***Option Agreement***" means a written agreement between the Company and the Optionholder evidencing the terms and conditions of the Option grant. The Option Agreement includes the Grant Notice for the Option and the agreement containing the written summary of the general terms and conditions applicable to the Option and which is provided to a Participant along with the Grant Notice. Each Option Agreement will be subject to the terms and conditions of the Plan.

(pp) "***Optionholder***" means a person to whom an Option is granted pursuant to the Plan or, if applicable, such other person who holds an outstanding Option.

(qq) "***Other Award***" means an award valued in whole or in part by reference to, or otherwise based on, Common Stock, including the appreciation in value thereof (e.g., options or stock rights with an exercise price or strike price less than 100% of the Fair Market Value at the time of grant) that is not an Incentive Stock Options, Nonstatutory Stock Option, SAR, Restricted Stock Award, RSU Award or Performance Award.

(rr) "***Other Award Agreement***" means a written agreement between the Company and a holder of an Other Award evidencing the terms and conditions of an Other Award grant. Each Other Award Agreement will be subject to the terms and conditions of the Plan.

(ss) "***Own,***" "***Owned,***" "***Owner,***" "***Ownership***" means that a person or Entity will be deemed to "Own," to have "Owned," to be the "Owner" of, or to have acquired "Ownership" of securities if such person or Entity, directly or indirectly, through any contract, arrangement, understanding, relationship or otherwise, has or shares voting power, which includes the power to vote or to direct the voting, with respect to such securities.

(tt) "***Participant***" means an Employee, Director or Consultant to whom an Award is granted pursuant to the Plan or, if applicable, such other person who holds an outstanding Award.

(uu) "***Performance Award***" means an Award that may vest or may be exercised or a cash award that may vest or become earned and paid contingent upon the attainment during a Performance Period of certain Performance Goals and which is granted under the terms and conditions of Section 5(b) pursuant to such terms as are approved by the Board. In addition, to the extent permitted by Applicable Law and set forth in the applicable Award Agreement, the Board may determine that cash or other property may be used in payment of Performance Awards. Performance Awards that are settled in cash or other property are not required to be valued in whole or in part by reference to, or otherwise based on, the Common Stock.

(vv) "***Performance Criteria***" means the one or more criteria that the Board will select for purposes of establishing the Performance Goals for a Performance Period. The Performance Criteria that will be used to establish such Performance Goals may be based on any one of, or combination of, the following as determined by the Board: earnings (including earnings per share and net earnings); earnings before interest, taxes and depreciation; earnings before interest, taxes, depreciation and amortization; total stockholder return; return on equity or average stockholder's equity; return on assets, investment, or capital employed; stock price; margin (including gross margin); income (before or after taxes); operating income; operating income after taxes; pre-tax profit; operating cash flow; sales or revenue targets; increases in revenue or product revenue; expenses and cost reduction goals; improvement in or attainment of working capital levels; economic value added (or an equivalent metric); market share; cash flow; cash flow per share; share price performance; debt reduction; customer satisfaction; stockholders' equity; capital expenditures; debt levels; operating profit or net operating profit; workforce diversity; growth of net income or operating income; billings; pre-clinical development related compound goals; financing; regulatory milestones, including approval of a compound; stockholder liquidity; corporate governance and compliance; product commercialization; intellectual property; personnel matters; progress of internal research or clinical programs; progress of partnered programs; partner satisfaction; budget management; clinical achievements; completing phases of a clinical study (including the treatment phase); announcing or presenting preliminary or final data from clinical studies; in each case, whether on particular timelines or generally; timely completion of clinical trials; submission of INDs and NDAs and other regulatory achievements; partner or collaborator achievements; internal controls, including those related to the Sarbanes-Oxley Act of 2002; research progress, including the development of programs; investor relations, analysts and communication; manufacturing achievements (including obtaining particular yields from manufacturing runs and other measurable objectives related to process development activities); strategic partnerships or transactions (including in-licensing and out-licensing of intellectual property; establishing relationships with commercial entities with respect to the marketing, distribution and sale of the Company's products (including with group purchasing organizations, distributors and other vendors); supply chain achievements (including establishing relationships with manufacturers or suppliers of active pharmaceutical ingredients and other component materials and manufacturers of the Company's products); co-development, co-marketing, profit sharing, joint venture or other similar arrangements; individual performance goals; (lix) corporate development and planning goals; and other measures of performance selected by the Board or Committee.

(ww) "***Performance Goals***" means, for a Performance Period, the one or more goals established by the Board for the Performance Period based upon the Performance Criteria. Performance Goals may be based on a Company-wide basis, with respect to one or more business units, divisions, Affiliates, or business segments, and in either absolute terms or relative to the performance of one or more comparable companies or the performance of one or more relevant indices. Unless specified otherwise by the Board (i) in the Award Agreement at the time the Award is granted or (ii) in such other document setting forth the Performance Goals at the time the Performance Goals are established, the Board will appropriately make adjustments in the method of calculating the attainment of Performance

Goals for a Performance Period as follows: (1) to exclude restructuring and/or other nonrecurring charges; (2) to exclude exchange rate effects; (3) to exclude the effects of changes to generally accepted accounting principles; (4) to exclude the effects of any statutory adjustments to corporate tax rates; (5) to exclude the effects of items that are "unusual" in nature or occur "infrequently" as determined under generally accepted accounting principles; (6) to exclude the dilutive effects of acquisitions or joint ventures; (7) to assume that any business divested by the Company achieved performance objectives at targeted levels during the balance of a Performance Period following such divestiture; (8) to exclude the effect of any change in the outstanding shares of Common Stock of the Company by reason of any stock dividend or split, stock repurchase, reorganization, recapitalization, merger, consolidation, spin-off, combination or exchange of shares or other similar corporate change, or any distributions to common stockholders other than regular cash dividends; (9) to exclude the effects of stock based compensation and the award of bonuses under the Company's bonus plans; (10) to exclude costs incurred in connection with potential acquisitions or divestitures that are required to expensed under generally accepted accounting principles; and (11) to exclude the goodwill and intangible asset impairment charges that are required to be recorded under generally accepted accounting principles. In addition, the Board retains the discretion to reduce or eliminate the compensation or economic benefit due upon attainment of Performance Goals and to define the manner of calculating the Performance Criteria it selects to use for such Performance Period. Partial achievement of the specified criteria may result in the payment or vesting corresponding to the degree of achievement as specified in the Award Agreement or the written terms of a Performance Cash Award.

(xx) "***Performance Period***" means the period of time selected by the Board over which the attainment of one or more Performance Goals will be measured for the purpose of determining a Participant's right to vesting or exercise of an Award. Performance Periods may be of varying and overlapping duration, at the sole discretion of the Board.

(yy) "***Plan***" means this Pulmonx Corporation 2020 Equity Incentive Plan.

(zz) "***Plan Administrator***" means the person, persons, and/or third-party administrator designated by the Company to administer the day to day operations of the Plan and the Company's other equity incentive programs.

(aaa) "***Post-Termination Exercise Period***" means the period following termination of a Participant's Continuous Service within which an Option or SAR is exercisable, as specified in Section 4(h).

(bbb) "***Prior Plan***" means the Company's 2010 Equity Incentive Plan.

(ccc) "***Prospectus***" means the document containing the Plan information specified in Section 10(a) of the Securities Act.

(ddd) "***Restricted Stock Award***" or "***RSA***" means an Award of shares of Common Stock which is granted pursuant to the terms and conditions of Section 5(a).

(eee) "***Restricted Stock Award Agreement***" means a written agreement between the Company and a holder of a Restricted Stock Award evidencing the terms and conditions of a Restricted Stock Award grant. The Restricted Stock Award Agreement includes the Grant Notice for the Restricted Stock Award and the agreement containing the written summary of the general terms and conditions applicable to the Restricted Stock Award and which is provided to a Participant along with the Grant Notice. Each Restricted Stock Award Agreement will be subject to the terms and conditions of the Plan.

(fff) “***RSU Award***” or “***RSU***” means an Award of restricted stock units representing the right to receive an issuance of shares of Common Stock which is granted pursuant to the terms and conditions of Section 5(a).

(ggg) “***RSU Award Agreement***” means a written agreement between the Company and a holder of a RSU Award evidencing the terms and conditions of a RSU Award. The RSU Award Agreement includes the Grant Notice for the RSU Award and the agreement containing the written summary of the general terms and conditions applicable to the RSU Award and which is provided to a Participant along with the Grant Notice. Each RSU Award Agreement will be subject to the terms and conditions of the Plan.

(hhh) “***Rule 16b-3***” means Rule 16b-3 promulgated under the Exchange Act or any successor to Rule 16b-3, as in effect from time to time.

(iii) “***Rule 405***” means Rule 405 promulgated under the Securities Act.

(jjj) “***Section 409A***” means Section 409A of the Code and the regulations and other guidance thereunder.

(kkk) “***Section 409A Change in Control***” means a change in the ownership or effective control of the Company, or in the ownership of a substantial portion of the Company’s assets, as provided in Section 409A(a)(2)(A)(v) of the Code and Treasury Regulations Section 1.409A-3(i)(5) (without regard to any alternative definition thereunder).

(lll) “***Securities Act***” means the Securities Act of 1933, as amended.

(mmm) “***Share Reserve***” means the number of shares available for issuance under the Plan as set forth in Section 2(a).

(nnn) “***Stock Appreciation Right***” or “***SAR***” means a right to receive the appreciation on Common Stock that is granted pursuant to the terms and conditions of Section 4.

(ooo) “***SAR Agreement***” means a written agreement between the Company and a holder of a SAR evidencing the terms and conditions of a SAR grant. The SAR Agreement includes the Grant Notice for the SAR and the agreement containing the written summary of the general terms and conditions applicable to the SAR and which is provided to a Participant along with the Grant Notice. Each SAR Agreement will be subject to the terms and conditions of the Plan.

(ppp) “***Subsidiary***” means, with respect to the Company, (i) any corporation of which more than 50% of the outstanding Common Stock having ordinary voting power to elect a majority of the board of directors of such corporation (irrespective of whether, at the time, stock of any other class or classes of such corporation will have or might have voting power by reason of the happening of any contingency) is at the time, directly or indirectly, Owned by the Company, and (ii) any partnership, limited liability company or other entity in which the Company has a direct or indirect interest (whether in the form of voting or participation in profits or capital contribution) of more than 50%.

(qqq) “***Ten Percent Stockholder***” means a person who Owns (or is deemed to Own pursuant to Section 424(d) of the Code) stock possessing more than 10% of the total combined voting power of all classes of stock of the Company or any Affiliate.

(rrr) “***Trading Policy***” means the Company’s policy permitting certain individuals to sell Company shares only during certain "window" periods and/or otherwise restricts the ability of certain individuals to transfer or encumber Company shares, as in effect from time to time.

(sss) “***Unvested Non-Exempt Award***” means the portion of any Non-Exempt Award that had not vested in accordance with its terms upon or prior to the date of any Corporate Transaction.

(ttt) “***Vested Non-Exempt Award***” means the portion of any Non-Exempt Award that had vested in accordance with its terms upon or prior to the date of a Corporate Transaction.

PULMONX CORPORATION
STOCK OPTION GRANT NOTICE
(2020 EQUITY INCENTIVE PLAN)

Pulmonx Corporation (the "***Company***"), pursuant to its 2020 Equity Incentive Plan (the "***Plan***"), has granted to you ("***Optionholder")*** an option to purchase the number of shares of the Common Stock set forth below (the "***Option***"). Your Option is subject to all of the terms and conditions as set forth herein and in the Plan and the Stock Option Agreement, all of which are attached hereto and incorporated herein in their entirety. Capitalized terms not explicitly defined herein but defined in the Plan or the Stock Option Agreement shall have the meanings set forth in the Plan or the Stock Option Agreement, as applicable.

Optionholder:	______________________
Date of Grant:	______________________
Vesting Commencement Date:	______________________
Number of Shares of Common Stock Subject to Option:	
Exercise Price (Per Share):	______________________
Total Exercise Price:	______________________
Expiration Date:	______________________

Type of Grant: **[**Incentive Stock Option] OR [Nonstatutory Stock Option]

Exercise and
Vesting Schedule: Subject to the Optionholder's Continuous Service through each applicable vesting date, the Option will vest as follows:

[__________]

Optionholder Acknowledgements: By your signature below or by electronic acceptance or authentication in a form authorized by the Company, you understand and agree that:

- The Option is governed by this Stock Option Grant Notice, and the provisions of the Plan and the Stock Option Agreement, all of which are made a part of this document. Unless otherwise provided in the Plan, this Grant Notice and the Stock Option Agreement (together, the "***Option Agreement***") may not be modified, amended or revised except in a writing signed by you and a duly authorized officer of the Company.

- If the Option is an Incentive Stock Option, it (plus other outstanding Incentive Stock Options granted to you) cannot be first *exercisable* for more than $100,000 in value (measured by exercise price) in any calendar year. Any excess over $100,000 is a Nonstatutory Stock Option.

- You consent to receive this Grant Notice, the Stock Option Agreement, the Plan, the Prospectus and any other Plan-related documents by electronic delivery and to participate in the Plan through an on-line or electronic system established and maintained by the Company or another third party designated by the Company.

- You have read and are familiar with the provisions of the Plan, the Stock Option Agreement, and the Prospectus. In the event of any conflict between the provisions in this Grant Notice, the Option Agreement, or the Prospectus and the terms of the Plan, the terms of the Plan shall control.

- The Option Agreement sets forth the entire understanding between you and the Company regarding the acquisition of Common Stock and supersedes all prior oral and written agreements, promises and/or representations on that subject with the exception of other equity awards previously granted to you and any written employment agreement, offer letter, severance agreement, written severance plan or policy, or other written agreement between the Company and you in each case that specifies the terms that should govern this Option.

- Counterparts may be delivered via facsimile, electronic mail (including pdf or any electronic signature complying with the U.S. federal ESIGN Act of 2000, Uniform Electronic Transactions Act or other applicable law) or other transmission method and any counterpart so delivered will be deemed to have been duly and validly delivered and be valid and effective for all purposes.

PULMONX CORPORATION		**OPTIONHOLDER:**	
By:	______________________		______________________
	Signature		Signature
Title:	______________________	Date:	______________________
Date:	______________________		

PULMONX CORPORATION
2020 EQUITY INCENTIVE PLAN

STOCK OPTION AGREEMENT

As reflected by your Stock Option Grant Notice ("***Grant Notice***") Pulmonx Corporation (the "***Company***") has granted you an option under its 2020 Equity Incentive Plan (the "***Plan***") to purchase a number of shares of Common Stock at the exercise price indicated in your Grant Notice (the "***Option***"). Capitalized terms not explicitly defined in this Agreement but defined in the Grant Notice or the Plan shall have the meanings set forth in the Grant Notice or Plan, as applicable. The terms of your Option as specified in the Grant Notice and this Stock Option Agreement constitute your Option Agreement.

The general terms and conditions applicable to your Option are as follows:

1. GOVERNING PLAN DOCUMENT. Your Option is subject to all the provisions of the Plan. Your Option is further subject to all interpretations, amendments, rules and regulations, which may from time to time be promulgated and adopted pursuant to the Plan. In the event of any conflict between the Option Agreement and the provisions of the Plan, the provisions of the Plan shall control.

2. EXERCISE.

(a) You may generally exercise the vested portion of your Option for whole shares of Common Stock at any time during its term by delivery of payment of the exercise price and applicable withholding taxes and other required documentation to the Plan Administrator in accordance with the exercise procedures established by the Plan Administrator, which may include an electronic submission. Please review the Plan, which may restrict or prohibit your ability to exercise your Option during certain periods.

(b) To the extent permitted by Applicable Law, you may pay your Option exercise price as follows:

(i) cash, check, bank draft or money order;

(ii) subject to Company and/or Committee consent at the time of exercise, pursuant to a "cashless exercise" program as further described in the Plan if at the time of exercise the Common Stock is publicly traded;

(iii) subject to Company and/or Committee consent at the time of exercise, by delivery of previously owned shares of Common Stock as further described in the Plan; or

(iv) subject to Company and/or Committee consent at the time of exercise, if the Option is a Nonstatutory Stock Option, by a "net exercise" arrangement as further described in the Plan.

3. **TERM.** You may not exercise your Option before the commencement of its term or after its term expires. The term of your option commences on the Date of Grant and expires upon the earliest of the following:

(a) immediately upon the termination of your Continuous Service for Cause;

(b) three months after the termination of your Continuous Service for any reason other than Cause, Disability or death;

(c) 12 months after the termination of your Continuous Service due to your Disability;

(d) 18 months after your death if you die during your Continuous Service;

(e) immediately upon a Corporate Transaction if the Board has determined that the Option will terminate in connection with a Corporate Transaction,

(f) the Expiration Date indicated in your Grant Notice; or

(g) the day before the 10th anniversary of the Date of Grant.

Notwithstanding the foregoing, if you die during the period provided in Section 3(b) or 3(c) above, the term of your Option shall not expire until the earlier of (i) eighteen months after your death, (ii) upon any termination of the Option in connection with a Corporate Transaction, (iii) the Expiration Date indicated in your Grant Notice, or (iv) the day before the tenth anniversary of the Date of Grant. Additionally, the Post-Termination Exercise Period of your Option may be extended as provided in the Plan.

To obtain the federal income tax advantages associated with an Incentive Stock Option, the Code requires that at all times beginning on the date of grant of your Option and ending on the day three months before the date of your Option's exercise, you must be an employee of the Company or an Affiliate, except in the event of your death or Disability. If the Company provides for the extended exercisability of your Option under certain circumstances for your benefit, your Option will not necessarily be treated as an Incentive Stock Option if you exercise your Option more than three months after the date your employment terminates.

4. **WITHHOLDING OBLIGATIONS.**

(a) Regardless of any action taken by the Company or, if different, the Affiliate to which you provide Continuous Service (the "***Service Recipient***") with respect to any income tax, social insurance, payroll tax, fringe benefits tax, payment on account, or other tax-related items associated with the grant, vesting or exercise of the Option or sale of the underlying Common Stock or other tax-related items related to your participation in the Plan and legally applicable to you (the "***Tax Liability***"), you hereby acknowledge and agree that the Tax Liability is your ultimate responsibility and may exceed the amount, if any, actually withheld by the Company or the Service Recipient. You further acknowledge that the Company and the Service Recipient (i) make no representations or undertakings regarding any Tax Liability in connection with any aspect of this Option, including, but not limited to, the grant, vesting or exercise of the Option, the issuance of Common Stock pursuant to such exercise, the subsequent sale of shares of Common Stock, and the payment of any dividends on the shares; and (ii) do not commit to and are under no obligation to structure the terms of the grant or any aspect of the Option to reduce or eliminate your Tax Liability or achieve a particular tax result. Further, if you are subject to Tax Liability in more than one jurisdiction, you acknowledge that the Company and/or the Service Recipient (or former service recipient, as applicable) may be required to withhold or account for Tax Liability in more than one jurisdiction.

(b) Prior to any relevant taxable or tax withholding event, as applicable, you agree to make adequate arrangements satisfactory to the Company and/or the Service Recipient to satisfy all Tax Liability. As further provided in Section 8 of the Plan, you hereby authorize the Company and any applicable Service Recipient to satisfy any applicable withholding obligations with regard to the Tax Liability by one or a combination of the following methods: (i) causing you to pay any portion of the Tax Liability in cash or cash equivalent in a form acceptable to the Company; (ii) withholding from any compensation otherwise payable to you by the Company or the Service Recipient; (iii) withholding from the proceeds of the sale of shares of Common Stock issued upon exercise of the Option (including by means of a "cashless exercise" pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board to the extent permitted by the Company, or by means of the Company acting as your agent to sell sufficient shares of Common Stock for the proceeds to settle such withholding requirements, on your behalf pursuant to this authorization without further consent); (iv) withholding shares of Common Stock otherwise issuable to you upon the exercise of the Option, provided that to the extent necessary to qualify for an exemption from application of Section 16(b) of the Exchange Act, if applicable, such share withholding procedure will be subject to the express prior approval of the Board or the Company's Compensation Committee; and/or (v) any other method determined by the Company to be in compliance with Applicable Law. Furthermore, you agree to pay the Company or the Service Recipient any amount the Company or the Service Recipient may be required to withhold, collect or pay as a result of your participation in the Plan or that cannot be satisfied by the means previously described. In the event it is determined that the amount of the Tax Liability was greater than the amount withheld by the Company or the Service Recipient, you agree to indemnify and hold the Company and/or the Service Recipient (as applicable) harmless from any failure by the Company or the applicable Service Recipient to withhold the proper amount.

(c) The Company may withhold or account for your Tax Liability by considering statutory withholding amounts or other withholding rates applicable in your jurisdiction(s), including (i) maximum applicable rates in your jurisdiction(s), in which case you may receive a refund of any over-withheld amount in cash (whether from applicable tax authorities or the Company) and you will have no entitlement to the equivalent amount in Common Stock or (ii) minimum or such other applicable rates in your jurisdiction(s), in which case you may be solely responsible for paying any additional Tax Liability to the applicable tax authorities or to the Company and/or the Service Recipient. If the Tax Liability withholding obligation is satisfied by withholding shares of Common Stock, for tax purposes, you are deemed to have been issued the full number of shares of Common Stock subject to the exercised portion of the Option, notwithstanding that a number of the shares of Common Stock is held back solely for the purpose of paying such Tax Liability.

(d) You acknowledge that you may not be able to exercise your Option even though the Option is vested, and that the Company shall have no obligation to issue shares of Common Stock, in each case, unless and until you have fully satisfied any applicable Tax Liability, as determined by the Company. Unless any withholding obligation for the Tax Liability is satisfied, the Company shall have no obligation to deliver to you any Common Stock in respect of the Option.

5. INCENTIVE STOCK OPTION DISPOSITION REQUIREMENT. If your option is an Incentive Stock Option, you must notify the Company in writing within 15 days after the date of any disposition of any of the shares of the Common Stock issued upon exercise of your option that occurs within two years after the date of your option grant or within one year after such shares of Common Stock are transferred upon exercise of your option.

6. TRANSFERABILITY. Except as otherwise provided in the Plan, your Option is not transferable, except by will or by the applicable laws of descent and distribution, and is exercisable during your life only by you.

7. CORPORATE TRANSACTION. Your Option is subject to the terms of any agreement governing a Corporate Transaction involving the Company, including, without limitation, a provision for the appointment of a stockholder representative that is authorized to act on your behalf with respect to any escrow, indemnities and any contingent consideration.

8. NO LIABILITY FOR TAXES. As a condition to accepting the Option, you hereby (a) agree to not make any claim against the Company, or any of its Officers, Directors, Employees or Affiliates related to tax liabilities arising from the Option or other Company compensation and (b) acknowledge that you were advised to consult with your own personal tax, financial and other legal advisors regarding the tax consequences of the Option and have either done so or knowingly and voluntarily declined to do so. Additionally, you acknowledge that the Option is exempt from Section 409A only if the exercise price is at least equal to the "fair market value" of the Common Stock on the date of grant as determined by the Internal Revenue Service and there is no other impermissible deferral of compensation associated with the Option. Additionally, as a condition to accepting the Option, you agree not make any claim against the Company, or any of its Officers, Directors, Employees or Affiliates in the event that the Internal Revenue Service asserts that such exercise is less than the "fair market value" of the Common Stock on the date of grant as subsequently determined by the Internal Revenue Service.

9. OBLIGATIONS; RECOUPMENT. You hereby acknowledge that the grant of your Option is additional consideration for any obligations (whether during or after employment) that you have to the Company not to compete, not to solicit its customers, clients or employees, not to disclose or misuse confidential information or similar obligations. Accordingly, if the Company reasonably determines that you breached such obligations, in addition to any other available remedy, the Company may, to the extent permitted by Applicable Law, recoup any income realized by you with respect to the exercise of your Option within two years of such breach. In addition, to the extent permitted by Applicable Law, this right to recoupment by the Company applies in the event that your employment is terminated for Cause or if the Company reasonably determines that circumstances existed that it could have terminated your employment for Cause.

10. SEVERABILITY. If any part of this Option Agreement or the Plan is declared by any court or governmental authority to be unlawful or invalid, such unlawfulness or invalidity will not invalidate any portion of this Option Agreement or the Plan not declared to be unlawful or invalid. Any Section of this Option Agreement (or part of such a Section) so declared to be unlawful or invalid will, if possible, be construed in a manner which will give effect to the terms of such Section or part of a Section to the fullest extent possible while remaining lawful and valid.

11. INDEBTEDNESS TO THE COMPANY. In the event that you have any loans, draws, advances or any other indebtedness owing to the Company at the time of exercise of all or a portion of the Option, the Company may deduct and not deliver that number of shares of Common Stock with a Fair Market Value subject to the Option equal to such indebtedness to satisfy all or a portion of such indebtedness, to the extent permitted by law and in a manner consistent with Section 409A of the Code, if applicable.

12. OTHER DOCUMENTS. You hereby acknowledge receipt of or the right to receive a document providing the information required by Rule 428(b)(1) promulgated under the Securities Act, which includes the Prospectus. In addition, you acknowledge receipt of the Company's Trading Policy.

13. QUESTIONS. If you have questions regarding these or any other terms and conditions applicable to your Option, including a summary of the applicable federal income tax consequences please see the Prospectus.

* * * *

Exhibit 10.7

Pulmonx Corporation
RSU Award Grant Notice
(2020 Equity Incentive Plan)

Pulmonx Corporation (the ***"Company"***) has awarded to you (the "***Participant***") the number of restricted stock units specified and on the terms set forth below in consideration of your services (the ***"RSU Award"***). Your RSU Award is subject to all of the terms and conditions as set forth herein and in the Company's 2020 Equity Incentive Plan (the ***"Plan"***) and the Award Agreement (the "***Agreement***"), which are incorporated herein in their entirety. Capitalized terms not explicitly defined herein but defined in the Plan or the Agreement shall have the meanings set forth in the Plan or the Agreement.

Participant:	______________________________
Date of Grant:	______________________________
Vesting Commencement Date:	______________________________
Number of Restricted Stock Units:	______________________________

Vesting Schedule: [____].
Notwithstanding the foregoing, vesting shall terminate upon the Participant's termination of Continuous Service.

Issuance Schedule: One share of Common Stock will be issued for each restricted stock unit which vests at the time set forth in Section 5 of the Agreement.

Participant Acknowledgements: By your signature below or by electronic acceptance or authentication in a form authorized by the Company, you understand and agree that:

- The RSU Award is governed by this RSU Award Grant Notice (the "***Grant Notice***"), and the provisions of the Plan and the Agreement, all of which are made a part of this document. Unless otherwise provided in the Plan, this Grant Notice and the Agreement (together, the "***RSU Award Agreement***") may not be modified, amended or revised except in a writing signed by you and a duly authorized officer of the Company.

- You have read and are familiar with the provisions of the Plan, the RSU Award Agreement and the Prospectus. In the event of any conflict between the provisions in the RSU Award Agreement, or the Prospectus and the terms of the Plan, the terms of the Plan shall control.

- The RSU Award Agreement sets forth the entire understanding between you and the Company regarding the acquisition of Common Stock and supersedes all prior oral and written agreements, promises and/or representations on that subject with the exception of: (i) other equity awards previously granted to you, and (ii) any written employment agreement, offer letter, severance agreement, written severance plan or policy, or other written agreement between the Company and you in each case that specifies the terms that should govern this RSU Award.

PULMONX CORPORATION		**PARTICIPANT:**	
By:	______________________________ Signature		______________________________ Signature
Title:	______________________________	Date:	______________________________
Date:	______________________________		

Pulmonx Corporation
2020 Equity Incentive Plan

Award Agreement (RSU Award)

As reflected by your Restricted Stock Unit Grant Notice ("***Grant Notice***"), Pulmonx Corporation (the "***Company***") has granted you a RSU Award under its 2020 Equity Incentive Plan (the "***Plan***") for the number of restricted stock units as indicated in your Grant Notice (the "***RSU Award***"). The terms of your RSU Award as specified in this Award Agreement for your RSU Award (the "***Agreement***") and the Grant Notice constitute your "***RSU Award Agreement***". Defined terms not explicitly defined in this Agreement but defined in the Grant Notice or the Plan shall have the same definitions as in the Grant Notice or Plan, as applicable.

The general terms applicable to your RSU Award are as follows:

1. Governing Plan Document. Your RSU Award is subject to all the provisions of the Plan. Your RSU Award is further subject to all interpretations, amendments, rules and regulations, which may from time to time be promulgated and adopted pursuant to the Plan. In the event of any conflict between the RSU Award Agreement and the provisions of the Plan, the provisions of the Plan shall control.

2. Grant of the RSU Award. This RSU Award represents your right to be issued on a future date the number of shares of the Company's Common Stock that is equal to the number of restricted stock units indicated in the Grant Notice subject to your satisfaction of the vesting conditions set forth therein (the "***Restricted Stock Units***"). Any additional Restricted Stock Units that become subject to the RSU Award pursuant to Capitalization Adjustments as set forth in the Plan and the provisions of Section 3 below, if any, shall be subject, in a manner determined by the Board, to the same forfeiture restrictions, restrictions on transferability, and time and manner of delivery as applicable to the other Restricted Stock Units covered by your RSU Award.

3. Dividends. You may become entitled to receive payments equal to any cash dividends and other distributions paid with respect to a corresponding number of shares of Common Stock to be issued in respect of the Restricted Stock Units covered by your RSU Award. Any such dividends or distributions shall be subject to the same forfeiture restrictions as apply to the Restricted Stock Units and shall be paid at the same time that the corresponding shares are issued in respect of your vested Restricted Stock Units, provided, however that to the extent any such dividends or distributions are paid in shares of Common Stock, then you will automatically be granted a corresponding number of additional Restricted Stock Units subject to the RSU Award (the "***Dividend Units***"), and further provided that such Dividend Units shall be subject to the same forfeiture restrictions and restrictions on transferability, and same timing requirements for issuance of shares, as apply to the Restricted Stock Units subject to the RSU Award with respect to which the Dividend Units relate.

4. Withholding Obligations.

(a) Regardless of any action taken by the Company or, if different, the Affiliate to which you provide Continuous Service (the "***Service Recipient***") with respect to any income tax, social insurance, payroll tax, fringe benefits tax, payment on account or other tax-related items associated with the grant or vesting of the RSU Award or sale of the underlying Common Stock or other tax-related items related to your participation in the Plan and legally applicable to you (the "***Tax Liability***"), you hereby acknowledge and agree that the Tax Liability is your ultimate responsibility and may exceed the amount, if any, actually withheld by the Company or the Service Recipient. You further acknowledge that the Company and the Service Recipient (i) make no representations or undertakings regarding any Tax Liability in connection with any aspect of this RSU Award, including, but not limited to, the grant or vesting of the RSU Award, the issuance of Common Stock pursuant to such vesting, the subsequent sale of shares of Common Stock, and the payment of any dividends on the Common Stock; and (ii) do not commit to and are under no obligation to structure the terms of the grant or any aspect of the RSU Award to reduce or eliminate your Tax Liability or achieve a particular tax result. Further, if you are subject to Tax Liability in more than one jurisdiction, you acknowledge that the Company and/or the Service Recipient (or former service recipient, as applicable) may be required to withhold or account for Tax Liability in more than one jurisdiction.

(b) Prior to any relevant taxable or tax withholding event, as applicable, you agree to make adequate arrangements satisfactory to the Company and/or the Service Recipient to satisfy all Tax Liability. As further provided in Section 8 of the Plan, you hereby authorize the Company and any applicable Service Recipient to satisfy any applicable withholding obligations with regard to the Tax Liability by any of the following means or by a combination of such means: (i) causing you to pay any portion of the Tax Liability in cash or cash equivalent in a form acceptable to the Company; (ii) withholding from any compensation otherwise payable to you by the Company or the Service Recipient; (iii) withholding shares of Common Stock from the shares of Common Stock issued or otherwise issuable to you in connection with the Award; *provided*, however, that to the extent necessary to qualify for an exemption from application of Section 16(b) of the Exchange Act, if applicable, such share withholding procedure will be subject to the express prior approval of the Board or the Company's Compensation Committee; (iv) permitting or requiring you to enter into a "same day sale" commitment, if applicable, with a broker-dealer that is a member of the Financial Industry Regulatory Authority (a "***FINRA Dealer***"), pursuant to this authorization and without further consent, whereby you irrevocably elect to sell a portion of the shares of Common Stock to be delivered in connection with your Restricted Stock Units to satisfy the Tax Liability and whereby the FINRA Dealer irrevocably commits to forward the proceeds necessary to satisfy the Tax Liability directly to the Company or the Service Recipient; and/or (v) any other method determined by the Company to be in compliance with Applicable Law. Furthermore, you agree to pay the Company or the Service Recipient any amount the Company or the Service Recipient may be required to withhold, collect, or pay as a result of your participation in the Plan or that cannot be satisfied by the means previously described. In the event it is determined that the amount of the Tax Liability was greater than the amount withheld by the Company and/or the Service Recipient (as applicable), you agree to indemnify and hold the Company and/or the Service Recipient (as applicable) harmless from any failure by the Company or the applicable Service Recipient to withhold the proper amount.

(c) The Company may withhold or account for your Tax Liability by considering statutory withholding amounts or other withholding rates applicable in your jurisdiction(s), including (i) maximum applicable rates in your jurisdiction(s), in which case you may receive a refund of any over-withheld amount in cash (whether from applicable tax authorities or the Company) and you will have no entitlement to the equivalent amount in Common Stock or (ii) minimum or such other applicable rates in your jurisdiction(s), in which case you may be solely responsible for paying any additional Tax Liability to the applicable tax authorities or to the Company and/or the Service Recipient. If the Tax Liability withholding obligation is satisfied by withholding shares of Common Stock, for tax purposes, you are deemed to have been issued the full number of shares of Common Stock subject to the vested portion of the RSU Award, notwithstanding that a number of the shares of Common Stock is held back solely for the purpose of paying such Tax Liability.

(d) You acknowledge that you may not participate in the Plan and the Company shall have no obligation to deliver shares of Common Stock until you have fully satisfied the Tax Liability, as determined by the Company. Unless any withholding obligation for the Tax Liability is satisfied, the Company shall have no obligation to deliver to you any Common Stock in respect of the RSU Award.

5. Date of Issuance.

(a) The issuance of shares in respect of the Restricted Stock Units is intended to comply with U.S. Treasury Regulations Section 1.409A-3(a) and will be construed and administered in such a manner. Subject to the satisfaction of the Tax Liability withholding obligation, if any, in the event one or more Restricted Stock Units vests, the Company shall issue to you one (1) share of Common Stock for each vested Restricted Stock Unit. Each issuance date determined by this paragraph is referred to as an "***Original Issuance Date***."

(b) If the Original Issuance Date falls on a date that is not a business day, delivery shall instead occur on the next following business day. In addition, if:

(i) the Original Issuance Date does not occur (1) during an "open window period" applicable to you, as determined by the Company in accordance with the Company's then-effective policy on trading in Company securities, or (2) on a date when you are otherwise permitted to sell shares of Common Stock on an established stock exchange or stock market (including but not limited to under a previously established written trading plan that meets the requirements of Rule 10b5-1 under the Exchange Act and was entered into in compliance with the Company's policies (a "***10b5-1 Arrangement***)), *and*

(ii) either (1) a Tax Liability withholding obligation does not apply, or (2) the Company decides, prior to the Original Issuance Date, (A) not to satisfy the Tax Liability withholding obligation by withholding shares of Common Stock from the shares otherwise due, on the Original Issuance Date, to you under this Award, and (B) not to permit you to enter into a "same day sale" commitment with a broker-dealer (including but not limited to a commitment under a 10b5-1 Arrangement) and (C) not to permit you to pay your Tax Liability in cash, then the shares that would otherwise be issued to you on the Original Issuance Date will not be delivered on such Original Issuance Date and will instead be delivered on the first business day when you are not prohibited from selling shares of the Common Stock in the open public market, but in no event later than December 31 of the calendar year in which the Original Issuance Date occurs (that is, the last day of your taxable year in which the Original Issuance Date occurs), or, if and only if permitted in a manner that complies with U.S. Treasury Regulations Section 1.409A-1(b)(4), no later than the date that is the 15th day of the third calendar month of the applicable year following the year in which the shares of Common Stock under this Award are no longer subject to a "substantial risk of forfeiture" within the meaning of U.S. Treasury Regulations Section 1.409A-1(d).

6. Transferability. Except as otherwise provided in the Plan, your RSU Award is not transferable, except by will or by the applicable laws of descent and distribution

7. Corporate Transaction. Your RSU Award is subject to the terms of any agreement governing a Corporate Transaction involving the Company, including, without limitation, a provision for the appointment of a stockholder representative that is authorized to act on your behalf with respect to any escrow, indemnities and any contingent consideration.

8. No Liability for Taxes. As a condition to accepting the RSU Award, you hereby (a) agree to not make any claim against the Company, or any of its Officers, Directors, Employees or Affiliates related to tax liabilities arising from the RSU Award or other Company compensation and (b) acknowledge that you were advised to consult with your own personal tax, financial and other legal advisors regarding the tax consequences of the RSU Award and have either done so or knowingly and voluntarily declined to do so.

9. Severability. If any part of this Agreement or the Plan is declared by any court or governmental authority to be unlawful or invalid, such unlawfulness or invalidity will not invalidate any portion of this Agreement or the Plan not declared to be unlawful or invalid. Any Section of this Agreement (or part of such a Section) so declared to be unlawful or invalid will, if possible, be construed in a manner which will give effect to the terms of such Section or part of a Section to the fullest extent possible while remaining lawful and valid.

10. Other Documents. You hereby acknowledge receipt of or the right to receive a document providing the information required by Rule 428(b)(1) promulgated under the Securities Act, which includes the Prospectus. In addition, you acknowledge receipt of the Company's Trading Policy.

11. Questions. If you have questions regarding these or any other terms and conditions applicable to your RSU Award, including a summary of the applicable federal income tax consequences please see the Prospectus.

PULMONX CORPORATION

2020 EMPLOYEE STOCK PURCHASE PLAN

ADOPTED BY THE BOARD OF DIRECTORS: SEPTEMBER 15, 2020
APPROVED BY THE STOCKHOLDERS: SEPTEMBER 16, 2020
IPO DATE: _______________, 2020

1. GENERAL; PURPOSE.

(a) The Plan provides a means by which Eligible Employees of the Company and certain designated Related Corporations may be given an opportunity to purchase shares of Common Stock. The Plan permits the Company to grant a series of Purchase Rights to Eligible Employees under an Employee Stock Purchase Plan. In addition, the Plan permits the Company to grant a series of Purchase Rights to Eligible Employees that do not meet the requirements of an Employee Stock Purchase Plan.

(b) The Plan includes two components: a 423 Component and a Non-423 Component. The Company intends (but makes no undertaking or representation to maintain) the 423 Component to qualify as an Employee Stock Purchase Plan. The provisions of the 423 Component, accordingly, will be construed in a manner that is consistent with the requirements of Section 423 of the Code. Except as otherwise provided in the Plan or determined by the Board, the Non-423 Component will operate and be administered in the same manner as the 423 Component.

(c) The Company, by means of the Plan, seeks to retain the services of such Employees, to secure and retain the services of new Employees and to provide incentives for such persons to exert maximum efforts for the success of the Company and its Related Corporations.

2. ADMINISTRATION.

(a) The Board or the Committee will administer the Plan. References herein to the Board shall be deemed to refer to the Committee except where context dictates otherwise.

(b) The Board will have the power, subject to, and within the limitations of, the express provisions of the Plan:

(i) To determine how and when Purchase Rights will be granted and the provisions of each Offering (which need not be identical).

(ii) To designate from time to time (A) which Related Corporations of the Company will be eligible to participate in the Plan, (B) whether such Related Corporations will participate in the 423 Component or the Non-423 Component, and (C) to the extent that the Company makes separate Offerings under the 423 Component, in which Offering the Related Corporations in the 423 Component will participate.

(iii) To construe and interpret the Plan and Purchase Rights, and to establish, amend and revoke rules and regulations for its administration. The Board, in the exercise of this power, may correct any defect, omission or inconsistency in the Plan, in a manner and to the extent it deems necessary or expedient to make the Plan fully effective.

(iv) To settle all controversies regarding the Plan and Purchase Rights granted under the Plan.

(v) To suspend or terminate the Plan at any time as provided in Section 12.

(vi) To amend the Plan at any time as provided in Section 12.

(vii) Generally, to exercise such powers and to perform such acts as it deems necessary or expedient to promote the best interests of the Company and its Related Corporations and to carry out the intent that the Plan be treated as an Employee Stock Purchase Plan with respect to the 423 Component.

(viii) To adopt such rules, procedures and sub-plans as are necessary or appropriate to permit or facilitate participation in the Plan by Employees who are foreign nationals or employed or located outside the United States. Without limiting the generality of, and consistent with, the foregoing, the Board specifically is authorized to adopt rules, procedures, and sub-plans regarding, without limitation, eligibility to participate in the Plan, the definition of eligible "earnings," handling and making of Contributions, establishment of bank or trust accounts to hold Contributions, payment of interest, conversion of local currency, obligations to pay payroll tax, determination of beneficiary designation requirements, withholding procedures and handling of share issuances, any of which may vary according to applicable requirements, and which, if applicable to a Related Corporation designated for participation in the Non-423 Component, do not have to comply with the requirements of Section 423 of the Code.

(c) The Board may delegate some or all of the administration of the Plan to a Committee or Committees. If administration is delegated to a Committee, the Committee will have, in connection with the administration of the Plan, the powers theretofore possessed by the Board that have been delegated to the Committee, including the power to delegate to a subcommittee any of the administrative powers the Committee is authorized to exercise (and references in this Plan to the Board will thereafter be to the Committee or subcommittee), subject, however, to such resolutions, not inconsistent with the provisions of the Plan, as may be adopted from time to time by the Board. The Board may retain the authority to concurrently administer the Plan with the Committee and may, at any time, revest in the Board some or all of the powers previously delegated. Whether or not the Board has delegated administration of the Plan to a Committee, the Board will have the final power to determine all questions of policy and expediency that may arise in the administration of the Plan.

(d) All determinations, interpretations and constructions made by the Board in good faith will not be subject to review by any person and will be final, binding and conclusive on all persons.

3. SHARES OF COMMON STOCK SUBJECT TO THE PLAN.

(a) Subject to the provisions of Section 11(a) relating to Capitalization Adjustments, the maximum number of shares of Common Stock that may be issued under the Plan will not exceed 720,000 shares of Common Stock, plus the number of shares of Common Stock that are automatically added on January 1st of each year for a period of up to ten years, commencing on the first January 1 following the year in which the IPO Date occurs and ending on (and including) January 1, 2030, in an amount equal to the lesser of (i) 1% of the total number of shares of Common Stock outstanding on December 31st of the preceding calendar year, and (ii) 1,300,000 shares of Common Stock. Notwithstanding the foregoing, the Board may act prior to the first day of any calendar year to provide that there will be no January 1st increase in the share reserve for such calendar year or that the increase in the share reserve for such calendar year will be a lesser number of shares of Common Stock than would otherwise occur pursuant to the preceding sentence. For the avoidance of doubt, up to the maximum number of shares of Common Stock reserved under this Section 3(a) may be used to satisfy purchases of Common Stock under the 423 Component and any remaining portion of such maximum number of shares may be used to satisfy purchases of Common Stock under the Non-423 Component.

(b) If any Purchase Right granted under the Plan terminates without having been exercised in full, the shares of Common Stock not purchased under such Purchase Right will again become available for issuance under the Plan.

(c) The stock purchasable under the Plan will be shares of authorized but unissued or reacquired Common Stock, including shares repurchased by the Company on the open market.

4. GRANT OF PURCHASE RIGHTS; OFFERING.

(a) The Board may from time to time grant or provide for the grant of Purchase Rights to Eligible Employees under an Offering (consisting of one or more Purchase Periods) on an Offering Date or Offering Dates selected by the Board. Each Offering will be in such form and will contain such terms and conditions as the Board will deem appropriate, and, with respect to the 423 Component, will comply with the requirement of Section 423(b)(5) of the Code that all Employees granted Purchase Rights will have the same rights and privileges. The terms and conditions of an Offering shall be incorporated by reference into the Plan and treated as part of the Plan. The provisions of separate Offerings need not be identical, but each Offering will include (through incorporation of the provisions of this Plan by reference in the document comprising the Offering or otherwise) the period during which the Offering will be effective, which period will not exceed 27 months beginning with the Offering Date, and the substance of the provisions contained in Sections 5 through 8, inclusive.

(b) If a Participant has more than one Purchase Right outstanding under the Plan, unless he or she otherwise indicates in forms delivered to the Company: (i) each form will apply to all of his or her Purchase Rights under the Plan, and (ii) a Purchase Right with a lower exercise price (or an earlier-granted Purchase Right, if different Purchase Rights have identical exercise prices) will be exercised to the fullest possible extent before a Purchase Right with a higher exercise price (or a later-granted Purchase Right if different Purchase Rights have identical exercise prices) will be exercised.

(c) The Board will have the discretion to structure an Offering so that if the Fair Market Value of a share of Common Stock on the first Trading Day of a new Purchase Period within that Offering is less than or equal to the Fair Market Value of a share of Common Stock on the Offering Date for that Offering, then (i) that Offering will terminate immediately as of that first Trading Day, and (ii) the Participants in such terminated Offering will be automatically enrolled in a new Offering beginning on the first Trading Day of such new Purchase Period.

5. ELIGIBILITY.

(a) Purchase Rights may be granted only to Employees of the Company or, as the Board may designate in accordance with Section 2(b), to Employees of a Related Corporation. Except as provided in Section 5(b) or as required by Applicable Law, an Employee will not be eligible to be granted Purchase Rights unless, on the Offering Date, the Employee has been in the employ of the Company or the Related Corporation, as the case may be, for such continuous period preceding such Offering Date as the Board may require, but in no event will the required period of continuous employment be equal to or greater than two years. In addition, the Board may (unless prohibited by law) provide that no Employee will be eligible to be granted Purchase Rights under the Plan unless, on the Offering Date, such Employee's customary employment with the Company or the Related Corporation is more than 20 hours per week and more than five months per calendar year or such other criteria as the Board may determine consistent with Section 423 of the Code with respect to the 423 Component. The Board may also exclude from participation in the Plan or any Offering Employees who are "highly compensated employees" (within the meaning of Section 423(b)(4)(D) of the Code) of the Company or a Related Corporation or a subset of such highly compensated employees.

(b) The Board may provide that each person who, during the course of an Offering, first becomes an Eligible Employee will, on a date or dates specified in the Offering which coincides with the day on which such person becomes an Eligible Employee or which occurs thereafter, receive a Purchase Right under that Offering, which Purchase Right will thereafter be deemed to be a part of that Offering. Such Purchase Right will have the same characteristics as any Purchase Rights originally granted under that Offering, as described herein, except that:

(i) the date on which such Purchase Right is granted will be the "Offering Date" of such Purchase Right for all purposes, including determination of the exercise price of such Purchase Right;

(ii) the period of the Offering with respect to such Purchase Right will begin on its Offering Date and end coincident with the end of such Offering; and

(iii) the Board may provide that if such person first becomes an Eligible Employee within a specified period of time before the end of the Offering, he or she will not receive any Purchase Right under that Offering.

(c) No Employee will be eligible for the grant of any Purchase Rights if, immediately after any such Purchase Rights are granted, such Employee owns stock possessing five percent or more of the total combined voting power or value of all classes of stock of the Company or of any Related Corporation. For purposes of this Section 5(c), the rules of Section 424(d) of the Code will apply in determining the stock ownership of any Employee, and stock which such Employee may purchase under all outstanding Purchase Rights and options will be treated as stock owned by such Employee.

(d) As specified by Section 423(b)(8) of the Code, an Eligible Employee may be granted Purchase Rights only if such Purchase Rights, together with any other rights granted under all Employee Stock Purchase Plans of the Company and any Related Corporations, do not permit such Eligible Employee's rights to purchase stock of the Company or any Related Corporation to accrue at a rate which, when aggregated, exceeds US $25,000 of Fair Market Value of such stock (determined at the time such rights are granted, and which, with respect to the Plan, will be determined as of their respective Offering Dates) for each calendar year in which such rights are outstanding at any time.

(e) Officers of the Company and any designated Related Corporation, if they are otherwise Eligible Employees, will be eligible to participate in Offerings under the Plan. Notwithstanding the foregoing, the Board may (unless prohibited by law) provide in an Offering that Employees who are highly compensated Employees within the meaning of Section 423(b)(4)(D) of the Code will not be eligible to participate.

(f) Notwithstanding anything in this Section 5 to the contrary, in the case of an Offering under the Non-423 Component, an Eligible Employee (or group of Eligible Employees) may be excluded from participation in the Plan or an Offering if the Board has determined, in its sole discretion, that participation of such Eligible Employee(s) is not advisable or practical for any reason.

6. Purchase Rights; Purchase Price.

(a) On each Offering Date, each Eligible Employee, pursuant to an Offering made under the Plan, will be granted a Purchase Right to purchase up to that number of shares of Common Stock purchasable either with a percentage or with a maximum dollar amount, as designated by the Board, but in either case not exceeding 15% of such Employee's earnings (as defined by the Board in each Offering) during the period that begins on the Offering Date (or such later date as the Board determines for a particular Offering) and ends on the date stated in the Offering, which date will be no later than the end of the Offering.

(b) The Board will establish one or more Purchase Dates during an Offering on which Purchase Rights granted for that Offering will be exercised and shares of Common Stock will be purchased in accordance with such Offering.

(c) In connection with each Offering made under the Plan, the Board may specify (i) a maximum number of shares of Common Stock that may be purchased by any Participant on any Purchase Date during such Offering, (ii) a maximum aggregate number of shares of Common Stock that may be purchased by all Participants pursuant to such Offering and/or (iii) a maximum aggregate number of shares of Common Stock that may be purchased by all Participants on any Purchase Date under the Offering. If the aggregate purchase of shares of Common Stock issuable upon exercise of Purchase Rights granted under the Offering would exceed any such maximum aggregate number, then, in the absence of any Board action otherwise, a pro rata (based on each Participant's accumulated Contributions) allocation of the shares of Common Stock (rounded down to the nearest whole share) available will be made in as nearly a uniform manner as will be practicable and equitable.

(d) The purchase price of shares of Common Stock acquired pursuant to Purchase Rights will be not less than the lesser of:

(i) an amount equal to 85% of the Fair Market Value of the shares of Common Stock on the Offering Date; or

(ii) an amount equal to 85% of the Fair Market Value of the shares of Common Stock on the applicable Purchase Date.

7. PARTICIPATION; WITHDRAWAL; TERMINATION.

(a) An Eligible Employee may elect to participate in an Offering and authorize payroll deductions as the means of making Contributions by completing and delivering to the Company, within the time specified in the Offering, an enrollment form provided by the Company. All forms referenced in the Plan may be electronic, if so determined by the Company. The enrollment form will specify the amount of Contributions not to exceed the maximum amount specified by the Board. Each Participant's Contributions will be credited to a bookkeeping account for such Participant under the Plan and will be deposited with the general funds of the Company except where Applicable Law requires that Contributions be deposited with a third party. If permitted in the Offering, a Participant may begin such Contributions with the first payroll occurring on or after the Offering Date (or, in the case of a payroll date that occurs after the end of the prior Offering but before the Offering Date of the next new Offering, Contributions from such payroll will be included in the new Offering). If permitted in the Offering, a Participant may thereafter reduce (including to zero) or increase his or her Contributions. If required under Applicable Law or if specifically provided in the Offering, in addition to or instead of making

Contributions by payroll deductions, a Participant may make Contributions through the payment by cash, check or wire transfer prior to a Purchase Date.

(b) During an Offering, a Participant may cease making Contributions and withdraw from the Offering by delivering to the Company a withdrawal form provided by the Company. The Company may impose a deadline before a Purchase Date for withdrawing. Upon such withdrawal, such Participant's Purchase Right in that Offering will immediately terminate and the Company will distribute as soon as practicable to such Participant all of his or her accumulated but unused Contributions and such Participant's Purchase Right in that Offering shall thereupon terminate. A Participant's withdrawal from that Offering will have no effect upon his or her eligibility to participate in any other Offerings under the Plan, but such Participant will be required to deliver a new enrollment form to participate in subsequent Offerings.

(c) Unless otherwise required by Applicable Law, Purchase Rights granted pursuant to any Offering under the Plan will terminate immediately if the Participant either (i) is no longer an Employee for any reason or for no reason (subject to any post-employment participation period required by law) or (ii) is otherwise no longer eligible to participate. The Company will distribute as soon as practicable to such individual all of his or her accumulated but unused Contributions.

(d) Unless otherwise determined by the Board, a Participant whose employment transfers or whose employment terminates with an immediate rehire (with no break in service) by or between the Company and a Related Corporation that has been designated for participation in the Plan will not be treated as having terminated employment for purposes of participating in the Plan or an Offering; however, if a Participant transfers from an Offering under the 423 Component to an Offering under the Non-423 Component, the exercise of the Participant's Purchase Right will be qualified under the 423 Component only to the extent such exercise complies with Section 423 of the Code. If a Participant transfers from an Offering under the Non-423 Component to an Offering under the 423 Component, the exercise of the Purchase Right will remain non-qualified under the Non-423 Component. The Board may establish different and additional rules governing transfers between separate Offerings within the 423 Component and between Offerings under the 423 Component and Offerings under the Non-423 Component.

(e) During a Participant's lifetime, Purchase Rights will be exercisable only by such Participant. Purchase Rights are not transferable by a Participant, except by will, by the laws of descent and distribution, or, if permitted by the Company, by a beneficiary designation as described in Section 10.

(f) Unless otherwise specified in the Offering or as required by Applicable Law, the Company will have no obligation to pay interest on Contributions.

8. EXERCISE OF PURCHASE RIGHTS.

(a) On each Purchase Date, each Participant's accumulated Contributions will be applied to the purchase of shares of Common Stock, up to the maximum number of shares of Common Stock permitted by the Plan and the applicable Offering, at the purchase price specified in the Offering. No fractional shares will be issued unless specifically provided for in the Offering.

(b) Unless otherwise provided in the Offering, if any amount of accumulated Contributions remains in a Participant's account after the purchase of shares of Common Stock on the final Purchase Date of an Offering, then such remaining amount will not roll over to the next Offering and will instead be distributed in full to such Participant after the final Purchase Date of such Offering without interest (unless otherwise required by Applicable Law).

(c) No Purchase Rights may be exercised to any extent unless the shares of Common Stock to be issued upon such exercise under the Plan are covered by an effective registration statement pursuant to the Securities Act and the Plan is in material compliance with all applicable U.S. federal and state, foreign and other securities, exchange control and other laws applicable to the Plan. If on a Purchase Date the shares of Common Stock are not so registered or the Plan is not in such compliance, no Purchase Rights will be exercised on such Purchase Date, and the Purchase Date will be delayed until the shares of Common Stock are subject to such an effective registration statement and the Plan is in material compliance, except that the Purchase Date will in no event be more than 27 months from the Offering Date. If, on the Purchase Date, as delayed to the maximum extent permissible, the shares of Common Stock are not registered and the Plan is not in material compliance with all Applicable Laws, as determined by the Company in its sole discretion, no Purchase Rights will be exercised and all accumulated but unused Contributions will be distributed to the Participants without interest (unless the payment of interest is otherwise required by Applicable Law).

9. COVENANTS OF THE COMPANY

The Company will seek to obtain from each U.S. federal or state, foreign or other regulatory commission or agency having jurisdiction over the Plan such authority as may be required to grant Purchase Rights and issue and sell shares of Common Stock thereunder unless the Company determines, in its sole discretion, that doing so would cause the Company to incur costs that are unreasonable. If, after commercially reasonable efforts, the Company is unable to obtain the authority that counsel for the Company deems necessary for the grant of Purchase Rights or the lawful issuance and sale of Common Stock under the Plan, and at a commercially reasonable cost, the Company will be relieved from any liability for failure to grant Purchase Rights and/or to issue and sell Common Stock upon exercise of such Purchase Rights.

10. DESIGNATION OF BENEFICIARY.

(a) The Company may, but is not obligated to, permit a Participant to submit a form designating a beneficiary who will receive any shares of Common Stock and/or Contributions from the Participant's account under the Plan if the Participant dies before such shares and/or Contributions are delivered to the Participant. The Company may, but is not obligated to, permit the Participant to change such designation of beneficiary. Any such designation and/or change must be on a form approved by the Company.

(b) If a Participant dies, and in the absence of a valid beneficiary designation, the Company will deliver any shares of Common Stock and/or Contributions to the executor or administrator of the estate of the Participant. If no executor or administrator has been appointed (to the knowledge of the Company), the Company, in its sole discretion, may deliver such shares of Common Stock and/or Contributions, without interest (unless the payment of interest is otherwise required by Applicable Law), to the Participant's spouse, dependents or relatives, or if no spouse, dependent or relative is known to the Company, then to such other person as the Company may designate.

11. ADJUSTMENTS UPON CHANGES IN COMMON STOCK; CORPORATE TRANSACTIONS.

(a) In the event of a Capitalization Adjustment, the Board will appropriately and proportionately adjust: (i) the class(es) and maximum number of securities subject to the Plan pursuant to Section 3(a), (ii) the class(es) and maximum number of securities by which the share reserve is to increase automatically each year pursuant to Section 3(a), (iii) the class(es) and number of securities subject to, and the purchase price applicable to outstanding Offerings and Purchase Rights, and (iv) the class(es) and number of securities that are the subject of the purchase limits under each ongoing Offering. The Board will make these adjustments, and its determination will be final, binding and conclusive.

(b) In the event of a Corporate Transaction, then: (i) any surviving corporation or acquiring corporation (or the surviving or acquiring corporation's parent company) may assume or continue outstanding Purchase Rights or may substitute similar rights (including a right to acquire the same consideration paid to the stockholders in the Corporate Transaction) for outstanding Purchase Rights, or (ii) if any surviving or acquiring corporation (or its parent company) does not assume or continue such Purchase Rights or does not substitute similar rights for such Purchase Rights, then the Participants' accumulated Contributions will be used to purchase shares of Common Stock (rounded down to the nearest whole share) within ten business days prior to the Corporate Transaction under the outstanding Purchase Rights, and the Purchase Rights will terminate immediately after such purchase.

12. AMENDMENT, TERMINATION OR SUSPENSION OF THE PLAN.

(a) The Board may amend the Plan at any time in any respect the Board deems necessary or advisable. However, except as provided in Section 11(a) relating to Capitalization Adjustments, stockholder approval will be required for any amendment of the Plan for which stockholder approval is required by Applicable Law.

(b) The Board may suspend or terminate the Plan at any time. No Purchase Rights may be granted under the Plan while the Plan is suspended or after it is terminated.

Any benefits, privileges, entitlements and obligations under any outstanding Purchase Rights granted before an amendment, suspension or termination of the Plan will not be materially impaired by any such amendment, suspension or termination except (i) with the consent of the person to whom such Purchase Rights were granted, (ii) as necessary to comply with any laws, listing requirements, or governmental regulations (including, without limitation, the provisions of Section 423 of the Code and the regulations and other interpretive guidance issued thereunder relating to Employee Stock Purchase Plans) including without limitation any such regulations or other guidance that may be issued or amended after the date the Plan is adopted by the Board, or (iii) as necessary to obtain or maintain favorable tax, listing, or regulatory treatment. To be clear, the Board may amend outstanding Purchase Rights without a Participant's consent if such amendment is necessary to ensure that the Purchase Right and/or the Plan complies with the requirements of Section 423 of the Code with respect to the 423 Component or with respect to other Applicable Laws. Notwithstanding anything in the Plan or any Offering Document to the contrary, the Board will be entitled to: (i) establish the exchange ratio applicable to amounts withheld in a currency other than U.S. dollars; (ii) permit Contributions in excess of the amount designated by a Participant in order to adjust for mistakes in the Company's processing of properly completed Contribution elections; (iii) establish reasonable waiting and adjustment periods and/or accounting and crediting procedures to ensure that amounts applied toward the purchase of Common Stock for each Participant properly correspond with amounts withheld from the Participant's Contributions; (iv) amend any outstanding Purchase Rights or clarify any ambiguities regarding the terms of any Offering to enable the Purchase Rights to qualify under and/or comply with Section 423 of the Code with respect to the 423 Component; and (v) establish other limitations or procedures as the Board determines in its sole discretion advisable that are consistent with the Plan. The actions of the Board pursuant to this paragraph will not be considered to alter or impair any Purchase Rights granted under an Offering as they are part of the initial terms of each Offering and the Purchase Rights granted under each Offering.

13. TAX QUALIFICATION; TAX WITHHOLDING

(a) Although the Company may endeavor to (i) qualify a Purchase Right for special tax treatment under the laws of the United States or jurisdictions outside of the United States or (ii) avoid adverse tax treatment, the Company makes no representation to that effect and expressly disavows any covenant to maintain special or to avoid unfavorable tax treatment, notwithstanding anything to the contrary in this Plan. The Company will be unconstrained in its corporate activities without regard to the potential negative tax impact on Participants.

(b) Each Participant will make arrangements, satisfactory to the Company and any applicable Related Corporation, to enable the Company or the Related Corporation to fulfill any withholding obligation for Tax-Related Items. Without limitation to the foregoing, in the Company's sole discretion and subject to Applicable Law, such withholding obligation may be satsified in whole or in part by (i) withholding from the Participant's salary or any other cash payment due to the Participant from the Company or a Related Corporation; (ii) withholding from the proceeds of the sale of shares of Common Stock acquired under the Plan, either through a voluntary sale or a mandatory sale arranged by the Company; or (iii) any other method deemed acceptable by the Board.

14. EFFECTIVE DATE OF PLAN.

The Plan will become effective immediately prior to and contingent upon the IPO Date. No Purchase Rights will be exercised unless and until the Plan has been approved by the stockholders of the Company, which approval must be within 12 months before or after the date the Plan is adopted (or if required under Section 12(a) above, materially amended) by the Board.

15. MISCELLANEOUS PROVISIONS.

(a) Proceeds from the sale of shares of Common Stock pursuant to Purchase Rights will constitute general funds of the Company.

(b) A Participant will not be deemed to be the holder of, or to have any of the rights of a holder with respect to, shares of Common Stock subject to Purchase Rights unless and until the Participant's shares of Common Stock acquired upon exercise of Purchase Rights are recorded in the books of the Company (or its transfer agent).

(c) The Plan and Offering do not constitute an employment contract. Nothing in the Plan or in the Offering will in any way alter the at will nature of a Participant's employment, if applicable, or be deemed to create in any way whatsoever any obligation on the part of any Participant to continue in the employ of the Company or a Related Corporation, or on the part of the Company or a Related Corporation to continue the employment of a Participant.

(d) The provisions of the Plan will be governed by the laws of the State of Delaware without resort to that state's conflicts of laws rules.

(e) If any particular provision of the Plan is found to be invalid or otherwise unenforceable, such provision will not affect the other provisions of the Plan, but the Plan will be construed in all respects as if such invalid provision were omitted.

(f) If any provision of the Plan does not comply with Applicable Law, such provision shall be construed in such a manner as to comply with Applicable Law.

16. DEFINITIONS.

As used in the Plan, the following definitions will apply to the capitalized terms indicated below:

(a) "***423 Component***" means the part of the Plan, which excludes the Non-423 Component, pursuant to which Purchase Rights that satisfy the requirements for an Employee Stock Purchase Plan may be granted to Eligible Employees.

(b) "***Applicable Law***" means shall mean any applicable securities, federal, state, foreign, material local or municipal or other law, statute, constitution, principle of common law, resolution, ordinance, code, edict, decree, rule, listing rule, regulation, judicial decision, ruling or requirement issued, enacted, adopted, promulgated, implemented or otherwise put into effect by or under the authority of any Governmental Body (or under the authority of the NASDAQ Stock Market or the Financial Industry Regulatory Authority).

(c) "***Board***" means the Board of Directors of the Company.

(d) "***Capitalization Adjustment***" means any change that is made in, or other events that occur with respect to, the Common Stock subject to the Plan or subject to any Purchase Right after the date the Plan is adopted by the Board without the receipt of consideration by the Company through merger, consolidation, reorganization, recapitalization, reincorporation, stock dividend, dividend in property other than cash, large nonrecurring cash dividend, stock split, liquidating dividend, combination of shares, exchange of shares, change in corporate structure or other similar equity restructuring transaction, as that term is used in Financial Accounting Standards Board Accounting Standards Codification Topic 718 (or any successor thereto). Notwithstanding the foregoing, the conversion of any convertible securities of the Company will not be treated as a Capitalization Adjustment.

(e) "***Code***" means the U.S. Internal Revenue Code of 1986, as amended, including any applicable regulations and guidance thereunder.

(f) "***Committee***" means a committee of one or more members of the Board to whom authority has been delegated by the Board in accordance with Section 2(c).

(g) "***Common Stock***" means the Common Stock of the Company.

(h) "***Company***" means Pulmonx Corporation, a Delaware corporation.

(i) ***"Contributions***" means the payroll deductions and other additional payments specifically provided for in the Offering that a Participant contributes to fund the exercise of a Purchase Right. A Participant may make additional payments into his or her account if specifically provided for in the Offering, and then only if the Participant has not already had the maximum permitted amount withheld during the Offering through payroll deductions.

(j) “***Corporate Transaction***” means the consummation, in a single transaction or in a series of related transactions, of any one or more of the following events:

(i) a sale or other disposition of all or substantially all, as determined by the Board in its sole discretion, of the consolidated assets of the Company and its subsidiaries;

(ii) a sale or other disposition of more than 50% of the outstanding securities of the Company;

(iii) a merger, consolidation or similar transaction following which the Company is not the surviving corporation; or

(iv) a merger, consolidation or similar transaction following which the Company is the surviving corporation but the shares of Common Stock outstanding immediately preceding the merger, consolidation or similar transaction are converted or exchanged by virtue of the merger, consolidation or similar transaction into other property, whether in the form of securities, cash or otherwise.

(k) “***Director***” means a member of the Board.

(l) “***Eligible Employee***” means an Employee who meets the requirements set forth in the document(s) governing the Offering for eligibility to participate in the Offering, provided that such Employee also meets the requirements for eligibility to participate set forth in the Plan.

(m) “***Employee***” means any person, including an Officer or Director, who is “employed” for purposes of Section 423(b)(4) of the Code by the Company or a Related Corporation. However, service solely as a Director, or payment of a fee for such services, will not cause a Director to be considered an “Employee” for purposes of the Plan.

(n) “***Employee Stock Purchase Plan***” means a plan that grants Purchase Rights intended to be options issued under an “employee stock purchase plan,” as that term is defined in Section 423(b) of the Code.

(o) “***Exchange Act***” means the U.S. Securities Exchange Act of 1934, as amended and the rules and regulations promulgated thereunder.

(p) “***Fair Market Value***” means, as of any date, the value of the Common Stock determined as follows:

(i) If the Common Stock is listed on any established stock exchange or traded on any established market, the Fair Market Value of a share of Common Stock will be the closing sales price for such stock as quoted on such exchange or market (or the exchange or market with the greatest volume of trading in the Common Stock) on the date of determination, as reported in such source as the Board deems reliable. Unless otherwise provided by the Board, if there is no closing sales price for the Common Stock on the date of determination, then the Fair Market Value will be the closing sales price on the last preceding date for which such quotation exists.

(ii) In the absence of such markets for the Common Stock, the Fair Market Value will be determined by the Board in good faith in compliance with Applicable Laws and regulations and in a manner that complies with Sections 409A of the Code

(iii) Notwithstanding the foregoing, for any Offering that commences on the IPO Date, the Fair Market Value of the shares of Common Stock on the Offering Date will be the price per share at which shares are first sold to the public in the Company's initial public offering as specified in the final prospectus for that initial public offering.

(q) "***Governmental Body***" means any: (a) nation, state, commonwealth, province, territory, county, municipality, district or other jurisdiction of any nature; (b) federal, state, local, municipal, foreign or other government; (c) governmental or regulatory body, or quasi-governmental body of any nature (including any governmental division, department, administrative agency or bureau, commission, authority, instrumentality, official, ministry, fund, foundation, center, organization, unit, body or entity and any court or other tribunal, and for the avoidance of doubt, any tax authority) or other body exercising similar powers or authority; or (d) self-regulatory organization (including the NASDAQ Stock Market and the Financial Industry Regulatory Authority).

(r) "***IPO Date***" means the date of the underwriting agreement between the Company and the underwriters managing the initial public offering of the Common Stock, pursuant to which the Common Stock is priced for the initial public offering.

(s) "Non-423 Component" means the part of the Plan, which excludes the 423 Component, pursuant to which Purchase Rights that are not intended to satisfy the requirements for an Employee Stock Purchase Plan may be granted to Eligible Employees.

(t) "***Offering***" means the grant to Eligible Employees of Purchase Rights, with the exercise of those Purchase Rights automatically occurring at the end of one or more Purchase Periods. The terms and conditions of an Offering will generally be set forth in the "***Offering Document***" approved by the Board for that Offering.

(u) "***Offering Date***" means a date selected by the Board for an Offering to commence.

(v) "***Officer***" means a person who is an officer of the Company or a Related Corporation within the meaning of Section 16 of the Exchange Act.

(w) "***Participant***" means an Eligible Employee who holds an outstanding Purchase Right.

(x) "***Plan***" means this Pulmonx Corporation 2020 Employee Stock Purchase Plan, as amended from time to time, including both the 423 Component and the Non-423 Component.

(y) "***Purchase Date***" means one or more dates during an Offering selected by the Board on which Purchase Rights will be exercised and on which purchases of shares of Common Stock will be carried out in accordance with such Offering.

(z) "***Purchase Period***" means a period of time specified within an Offering, generally beginning on the Offering Date or on the first Trading Day following a Purchase Date, and ending on a Purchase Date. An Offering may consist of one or more Purchase Periods.

(aa) "***Purchase Right***" means an option to purchase shares of Common Stock granted pursuant to the Plan.

(bb) “***Related Corporation***” means any “parent corporation” or “subsidiary corporation” of the Company whether now or subsequently established, as those terms are defined in Sections 424(e) and (f), respectively, of the Code.

(cc) “***Securities Act***” means the U.S. Securities Act of 1933, as amended.

(dd) “***Tax-Related Items***” means any income tax, social insurance, payroll tax, fringe benefit tax, payment on account or other tax-related items arising out of or in relation to a Participant’s participation in the Plan, including, but not limited to, the exercise of a Purchase Right and the receipt of shares of Common Stock or the sale or other disposition of shares of Common Stock acquired under the Plan.

(ee) “***Trading Day***” means any day on which the exchange(s) or market(s) on which shares of Common Stock are listed, including but not limited to the NYSE, Nasdaq Global Select Market, the Nasdaq Global Market, the Nasdaq Capital Market or any successors thereto, is open for trading.

PULMONX CORPORATION
INDEMNIFICATION AGREEMENT

This **INDEMNIFICATION AGREEMENT** (this "***Agreement***") is dated as of _____________, 20__ and is between Pulmonx Corporation, a Delaware corporation (the "***Company***"), and ______________ ("***Indemnitee***").

RECITALS

A. Indemnitee's service to the Company substantially benefits the Company.

B. Individuals are reluctant to serve as directors or officers of corporations or in certain other capacities unless they are provided with adequate protection through insurance or indemnification against the risks of claims and actions against them arising out of such service.

C. Indemnitee does not regard the protection currently provided by applicable law, the Company's governing documents and any insurance as adequate under the present circumstances, and Indemnitee may not be willing to serve as a director or officer without additional protection.

D. In order to induce Indemnitee to continue to provide services to the Company, it is reasonable, prudent and necessary for the Company to contractually obligate itself to indemnify, and to advance expenses on behalf of, Indemnitee as permitted by applicable law.

E. This Agreement is a supplement to and in furtherance of the indemnification provided in the Company's certificate of incorporation and bylaws, and any resolutions adopted pursuant thereto, and this Agreement shall not be deemed a substitute therefor, nor shall this Agreement be deemed to limit, diminish or abrogate any rights of Indemnitee thereunder.

The parties therefore agree as follows:

1. Definitions.

(a) A "***Change in Control***" shall be deemed to occur upon the earliest to occur after the date of this Agreement of any of the following events:

(i) *Acquisition of Stock by Third Party.* Any Person (as defined below) becomes the Beneficial Owner (as defined below), directly or indirectly, of securities of the Company representing fifty percent (50%) or more of the combined voting power of the Company's then outstanding securities;

(ii) *Change in Board Composition.* During any period of two consecutive years (not including any period prior to the execution of this Agreement), individuals who at the beginning of such period constituted the Company's board of directors and any Approved Directors cease for any reason to constitute at least a majority of the members of the Company's board of directors. "***Approved Directors***" means new directors (other than a director designated by a person who has entered into an agreement with the Company to effect a transaction described in Sections 1(a)(i), 1(a)(iii) or 1(a)(iv)) whose election or nomination by the board of directors (or, if applicable, by the Company's stockholders) was approved by a vote of at least two-thirds of the directors then still in office who either were directors at the beginning of such two-year period or whose election or nomination for election was previously so approved;

(iii) *Corporate Transactions.* The effective date of a merger or consolidation of the Company with any other entity, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior to such merger or consolidation continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity) more than 50% of the combined voting power of the voting securities of the surviving entity outstanding immediately after such merger or consolidation and with the power to elect at least a majority of the board of directors or other governing body of such surviving entity;

(iv) *Liquidation.* The approval by the stockholders of the Company of a complete liquidation or the dissolution of the Company or an agreement for the sale, lease or disposition by the Company of all or substantially all of the Company's assets; and

(v) *Other Events.* Any other event of a nature that would be required to be reported in response to Item 6(e) of Schedule 14A of Regulation 14A (or in response to any similar item on any similar schedule or form) promulgated under the Securities Exchange Act of 1934, as amended, whether or not the Company is then subject to such reporting requirement, *except* the completion of the Company's initial public offering shall not be considered a Change in Control.

For purposes of this Section 1(a), the following terms shall have the following meanings:

(1) "***Person***" shall have the meaning as set forth in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended; *provided, however,* that "***Person***" shall exclude (i) the Company, (ii) any trustee or other fiduciary holding securities under an employee benefit plan of the Company, and (iii) any corporation owned, directly or indirectly, by the stockholders of the Company in substantially the same proportions as their ownership of stock of the Company.

(2) "***Beneficial Owner***" shall have the meaning given to such term in Rule 13d-3 under the Securities Exchange Act of 1934, as amended; *provided, however,* that "***Beneficial Owner***" shall exclude any Person otherwise becoming a Beneficial Owner by reason of (i) the stockholders of the Company approving a merger of the Company with another entity or (ii) the Company's board of directors approving a sale of securities by the Company to such Person.

(b) "***Corporate Status***" describes the status of a person who is or was a director, trustee, general partner, managing member, officer, employee, agent or fiduciary of the Company or any other Enterprise.

(c) "***DGCL***" means the General Corporation Law of the State of Delaware.

(d) "***Disinterested Director***" means a director of the Company who is not and was not a party to the Proceeding in respect of which indemnification is sought by Indemnitee.

(e) "***Enterprise***" means the Company and any other corporation, partnership, limited liability company, joint venture, trust, employee benefit plan or other enterprise of which Indemnitee is or was serving at the request of the Company as a director, trustee, general partner, managing member, officer, employee, agent or fiduciary.

(f) "***Expenses***" include all reasonable and actually incurred attorneys' fees, retainers, court costs, transcript costs, fees and costs of experts, witness fees, travel expenses, duplicating costs, printing and binding costs, telephone charges, postage, delivery service fees, and all other disbursements or expenses of the types customarily incurred in connection with prosecuting, defending, preparing to prosecute or defend, investigating, being or preparing to be a witness in, or otherwise participating in, a Proceeding. Expenses also include (i) Expenses incurred in connection with any appeal resulting from any Proceeding, including without limitation the premium, security for, and other costs relating to any cost bond, supersede as bond or other appeal bond or their equivalent, and (ii) for purposes of Section 12(d), Expenses incurred by Indemnitee in connection with the interpretation, enforcement or defense of Indemnitee's rights under this Agreement or under any directors' and officers' liability insurance policies maintained by the Company. Expenses, however, shall not include amounts paid in settlement by Indemnitee or the amount of judgments or fines against Indemnitee.

(g) "***Independent Counsel***" means a law firm, or a partner or member of a law firm, that is experienced in matters of corporation law and neither presently is, nor in the past five years has been, retained to represent (i) the Company, any Enterprise or Indemnitee in any matter material to any such party (other than as Independent Counsel with respect to matters concerning Indemnitee under this Agreement, or other indemnitees under similar indemnification agreements), or (ii) any other party to the Proceeding giving rise to a claim for indemnification hereunder. Notwithstanding the foregoing, the term "***Independent Counsel***" shall not include any person who, under the applicable standards of professional conduct then prevailing, would have a conflict of interest in representing either the Company or Indemnitee in an action to determine Indemnitee's rights under this Agreement.

(h) "***Proceeding***" means any threatened, pending or completed action, suit, arbitration, mediation, alternate dispute resolution mechanism, investigation, inquiry, administrative hearing or proceeding, whether brought in the right of the Company or otherwise and whether of a civil, criminal, administrative or investigative nature, whether formal or informal, including any appeal therefrom and including without limitation any such Proceeding pending as of the date of this Agreement, in which Indemnitee was, is or will be involved as a party, a potential party, a non-party witness or otherwise by reason of (i) the fact that Indemnitee is or was a director or officer of the Company, (ii) any action taken by Indemnitee or any action or inaction on Indemnitee's part while acting as a director or officer of the Company, or (iii) the fact that he or she is or was serving at the request of the Company as a director, trustee, general partner, managing member, officer, employee, agent or fiduciary of the Company or any other Enterprise, in each case whether or not serving in such capacity at the time any liability or Expense is incurred for which indemnification or advancement of expenses can be provided under this Agreement.

(i) Reference to "***other enterprises***" shall include employee benefit plans; references to "***fines***" shall include any excise taxes assessed on a person with respect to any employee benefit plan; references to "***serving at the request of the Company***" shall include any service as a director, officer, employee or agent of the Company which imposes duties on, or involves services by, such director, officer, employee or agent with respect to an employee benefit plan, its participants or beneficiaries; and a person who acted in good faith and in a manner he or she reasonably believed to be in the best interests of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner "***not opposed to the best interests of the Company***" as referred to in this Agreement.

2. Indemnity in Third-Party Proceedings. The Company shall indemnify Indemnitee in accordance with the provisions of this Section 2 if Indemnitee is, or is threatened to be made, a party to or a participant in any Proceeding, other than a Proceeding by or in the right of the Company to procure a judgment in its favor. Pursuant to this Section 2, Indemnitee shall be indemnified to the fullest extent permitted by applicable law against all Expenses, judgments, fines and amounts paid in settlement actually and reasonably incurred by Indemnitee or on his or her behalf in connection with such Proceeding or any claim, issue or matter therein, if Indemnitee acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the Company and, with respect to any criminal action or proceeding, had no reasonable cause to believe that his or her conduct was unlawful.

3. Indemnity in Proceedings by or in the Right of the Company. The Company shall indemnify Indemnitee in accordance with the provisions of this Section 3 if Indemnitee is, or is threatened to be made, a party to or a participant in any Proceeding by or in the right of the Company to procure a judgment in its favor. Pursuant to this Section 3, Indemnitee shall be indemnified to the fullest extent permitted by applicable law against all Expenses actually and reasonably incurred by Indemnitee or on Indemnitee's behalf in connection with such Proceeding or any claim, issue or matter therein, if Indemnitee acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the Company. No indemnification for Expenses shall be made under this Section 3 in respect of any claim, issue or matter as to which Indemnitee shall have been adjudged by a court of competent jurisdiction to be liable to the Company, unless and only to the extent that the Delaware Court of Chancery or any court in which the Proceeding was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, Indemnitee is fairly and reasonably entitled to indemnification for such expenses as the Delaware Court of Chancery or such other court shall deem proper.

4. Indemnification for Expenses of a Party Who is Wholly or Partly Successful. To the extent that Indemnitee is a party to or a participant in and is successful (on the merits or otherwise) in defense of any Proceeding or any claim, issue or matter therein, the Company shall indemnify Indemnitee against all Expenses actually and reasonably incurred by Indemnitee or on Indemnitee's behalf in connection therewith. If Indemnitee is not wholly successful in such Proceeding but is successful, on the merits or otherwise, as to one or more but less than all claims, issues or matters in such Proceeding, the Company shall indemnify Indemnitee against all Expenses actually and reasonably incurred by him or her or on his or her behalf in connection with each successfully resolved claim, issue or matter. For purposes of this section, the termination of any claim, issue or matter in such a Proceeding by dismissal, with or without prejudice, shall be deemed to be a successful result as to such claim, issue or matter.

5. Indemnification for Expenses of a Witness. To the extent that Indemnitee is, by reason of his or her Corporate Status, a witness in any Proceeding to which Indemnitee is not a party, Indemnitee shall be indemnified to the extent permitted by applicable law against all Expenses actually and reasonably incurred by Indemnitee or on Indemnitee's behalf in connection therewith.

6. Additional Indemnification.

(a) Except as provided in Section 7, notwithstanding any limitation in Sections 2, 3 or 4, the Company shall indemnify Indemnitee to the fullest extent permitted by applicable law if Indemnitee is, or is threatened to be made, a party to or a participant in any Proceeding (including a Proceeding by or in the right of the Company to procure a judgment in its favor) against all Expenses, judgments, fines and amounts paid in settlement actually and reasonably incurred by Indemnitee or on his or her behalf in connection with the Proceeding or any claim, issue or matter therein.

(b) For purposes of Section 6(a), the meaning of the phrase "***to the fullest extent permitted by applicable law***" shall include, but not be limited to:

(i) the fullest extent permitted by the provision of the DGCL that authorizes or contemplates additional indemnification by agreement, or the corresponding provision of any amendment to or replacement of the DGCL; and

(ii) the fullest extent authorized or permitted by any amendments to or replacements of the DGCL adopted after the date of this Agreement that increase the extent to which a corporation may indemnify its officers and directors.

7. **Exclusions**. Notwithstanding any provision in this Agreement, the Company shall not be obligated under this Agreement to make any indemnity in connection with any Proceeding (or any part of any Proceeding):

(a) for which payment has actually been made to or on behalf of Indemnitee under any statute, insurance policy, indemnity provision, vote or otherwise, except with respect to any excess beyond the amount paid;

(b) for an accounting or disgorgement of profits pursuant to Section 16(b) of the Securities Exchange Act of 1934, as amended, or similar provisions of federal, state or local statutory law or common law, if Indemnitee is held liable therefor (including pursuant to any settlement arrangements);

(c) for any reimbursement of the Company by Indemnitee of any bonus or other incentive-based or equity-based compensation or of any profits realized by Indemnitee from the sale of securities of the Company, as required in each case under the Securities Exchange Act of 1934, as amended (including any such reimbursements that arise from an accounting restatement of the Company pursuant to Section 304 of the Sarbanes-Oxley Act of 2002 (the "***Sarbanes-Oxley Act***"), or the payment to the Company of profits arising from the purchase and sale by Indemnitee of securities in violation of Section 306 of the Sarbanes-Oxley Act), if Indemnitee is held liable therefor (including pursuant to any settlement arrangements);

(d) initiated by Indemnitee, including any Proceeding (or any part of any Proceeding) initiated by Indemnitee against the Company or its directors, officers, employees, agents or other indemnitees, unless (i) the Company's board of directors authorized the Proceeding (or the relevant part of the Proceeding) prior to its initiation, (ii) the Company provides the indemnification, in its sole discretion, pursuant to the powers vested in the Company under applicable law, (iii) otherwise authorized in Section 12(d) or (iv) otherwise required by applicable law; provided, for the avoidance of doubt, Indemnitee shall not be deemed for purposes of this paragraph, to have initiated any Proceeding (or any part of a Proceeding) by reason of (i) having asserted any affirmative defenses in connection with a claim not initiated by Indemnitee or (ii) having made any counterclaim (whether permissive or mandatory) in connection with any claim not initiated by Indemnitee; or

(e) if prohibited by applicable law.

8. **Advances of Expenses**. The Company shall advance the Expenses incurred by Indemnitee in connection with any Proceeding prior to its final disposition, and such advancement shall be made as soon as reasonably practicable, but in any event no later than 30 days, after the receipt by the Company of a written statement or statements requesting such advances from time to time (which shall include invoices received by Indemnitee in connection with such Expenses but, in the case of invoices in connection with legal services, any references to legal work performed or to expenditure made that would cause Indemnitee to waive any privilege accorded by applicable law shall not be included with the invoice). Advances shall be unsecured and interest free and made without regard to Indemnitee's ability to repay such advances. Indemnitee hereby undertakes to repay any advance to the extent that it is ultimately determined that Indemnitee is not entitled to be indemnified by the Company, *except*, with respect to advances of expenses made pursuant to Section 12(c) below, in which case Indemnitee makes the undertaking provided in Section 12(c) below. This Section 8 shall not apply to the extent advancement is prohibited by law and shall not apply to any Proceeding (or any part of any Proceeding) for which indemnity is not permitted under this Agreement, but shall apply to any Proceeding (or any part of any Proceeding) referenced in Section 7(b) or 7(c) prior to a determination that Indemnitee is not entitled to be indemnified by the Company.

9. Procedures for Notification and Defense of Claim.

(a) Indemnitee shall notify the Company in writing of any matter with respect to which Indemnitee intends to seek indemnification or advancement of Expenses as soon as reasonably practicable following the receipt by Indemnitee of notice thereof. The written notification to the Company shall include, in reasonable detail, a description of the nature of the Proceeding and the facts underlying the Proceeding. The failure by Indemnitee to notify the Company will not relieve the Company from any liability which it may have to Indemnitee hereunder or otherwise than under this Agreement, and any delay in so notifying the Company shall not constitute a waiver by Indemnitee of any rights, except to the extent that such failure or delay materially prejudices the Company.

(b) If, at the time of the receipt of a notice of a Proceeding pursuant to the terms hereof, the Company has directors' and officers' liability insurance in effect that may be applicable to the Proceeding, the Company shall give prompt notice of the commencement of the Proceeding to the insurers in accordance with the procedures set forth in the applicable policies. The Company shall thereafter take all commercially reasonable action to cause such insurers to pay, on behalf of Indemnitee, all amounts payable as a result of such Proceeding in accordance with the terms of such policies.

(c) In the event the Company may be obligated to make any indemnity in connection with a Proceeding, the Company shall be entitled to assume the defense of such Proceeding with counsel approved by Indemnitee, which approval shall not be unreasonably withheld, conditioned or delayed, upon the delivery to Indemnitee of written notice of its election to do so. After delivery of such notice, approval of such counsel by Indemnitee and the retention of such counsel by the Company, the Company will not be liable to Indemnitee for any fees or expenses of counsel subsequently incurred by Indemnitee with respect to the same Proceeding. Notwithstanding the Company's assumption of the defense of any such Proceeding, the Company shall be obligated to pay the fees and expenses of Indemnitee's separate counsel to the extent (i) the employment of separate counsel by Indemnitee is authorized by the Company, (ii) counsel for the Company or Indemnitee shall have reasonably concluded that there is a conflict of interest between the Company and Indemnitee in the conduct of any such defense such that Indemnitee needs to be separately represented, (iii) the Company is not financially or legally able to perform its indemnification obligations or (iv) the Company shall not have retained, or shall not continue to retain, counsel to defend such Proceeding. Regardless of any provision in this Agreement, Indemnitee shall have the right to employ counsel in any Proceeding at Indemnitee's personal expense. The Company shall not be entitled, without the consent of Indemnitee, to assume the defense of any claim brought by or in the right of the Company.

(d) Indemnitee shall give the Company such information and cooperation in connection with the Proceeding as may be reasonably appropriate.

(e) The Company shall not be liable to indemnify Indemnitee for any settlement of any Proceeding (or any part thereof) without the Company's prior written consent, which shall not be unreasonably withheld, conditioned or delayed. The Company acknowledges that a settlement or other disposition short of final judgment may be successful if it permits a party to avoid expense, delay, distraction, disruption and uncertainty. In the event that any action, claim or proceeding to which Indemnitee is a party is resolved in a settlement to which the Company has given its prior written consent, such settlement shall be treated as a success on the merits in the settled action, suit or proceeding.

(f) The Company shall not settle any Proceeding (or any part thereof) in a manner that imposes any penalty or liability on Indemnitee without Indemnitee's prior written consent, which shall not be unreasonably withheld, conditioned or delayed.

10. Procedures upon Application for Indemnification.

(a) To obtain indemnification, Indemnitee shall submit to the Company a written request, including therein or therewith such documentation and information as is reasonably available to Indemnitee and as is reasonably necessary to determine whether and to what extent Indemnitee is entitled to indemnification following the final disposition of the Proceeding. Any delay in providing the request will not relieve the Company from its obligations under this Agreement, except to the extent such failure is prejudicial.

(b) Upon written request by Indemnitee for indemnification pursuant to Section 10(a), a determination with respect to Indemnitee's entitlement thereto shall be made as follows, provided that a Change in Control shall not have occurred: (A) by a majority vote of the Disinterested Directors, even though less than a quorum of the Company's board of directors, (B) by a committee of Disinterested Directors designated by a majority vote of the Disinterested Directors, even though less than a quorum of the Company's board of directors, (C) if there are no such Disinterested Directors or, if such Disinterested Directors so direct, by Independent Counsel in a written opinion to the Company's board of directors, a copy of which shall be delivered to Indemnitee or (D) if so directed by the Company's board of directors, by the stockholders of the Company. If a Change in Control shall have occurred, a determination with respect to Indemnitee's entitlement to indemnification shall be made by Independent Counsel in a written opinion to the Company's board of directors, a copy of which shall be delivered to Indemnitee. If it is determined that Indemnitee is entitled to indemnification, payment to Indemnitee shall be made within ten days after such determination. Indemnitee shall cooperate with the person, persons or entity making the determination with respect to Indemnitee's entitlement to indemnification, including providing to such person, persons or entity upon reasonable advance request any documentation or information that is not privileged or otherwise protected from disclosure and that is reasonably available to Indemnitee and reasonably necessary to such determination. Any costs or expenses (including attorneys' fees and disbursements) actually and reasonably incurred by Indemnitee in so cooperating with the person, persons or entity making such determination shall be borne by the Company, to the extent permitted by applicable law.

(c) In the event the determination of entitlement to indemnification is to be made by Independent Counsel pursuant to Section 10(b), the Independent Counsel shall be selected as provided in this Section 10(c). If a Change in Control shall not have occurred, the Independent Counsel shall be selected by the Company's board of directors, and the Company shall give written notice to Indemnitee advising him or her of the identity of the Independent Counsel so selected. If a Change in Control shall have occurred, the Independent Counsel shall be selected by Indemnitee (unless Indemnitee shall request that such selection be made by the Company's board of directors, in which event the preceding sentence shall apply), and Indemnitee shall give written notice to the Company advising it of the identity of the Independent Counsel so selected. In either event, Indemnitee or the Company, as the case may be, may, within ten days after such written notice of selection shall have been given, deliver to the Company or to Indemnitee, as the case may be, a written objection to such selection; *provided*, *however*, that such objection may be asserted only on the ground that the Independent Counsel so selected does not meet the requirements of "Independent Counsel" as defined in Section 1 of this Agreement, and the objection shall set forth with particularity the factual basis of such assertion. Absent a proper and timely objection, the person so selected shall act as Independent Counsel. If such written objection is so made and substantiated, the Independent Counsel so selected may not serve as Independent Counsel unless and until such objection is withdrawn or a court has determined that such objection is without merit. If, within 20 days after the later of (i) submission by Indemnitee of a written request for indemnification pursuant to Section 10(a) hereof and (ii) the final disposition of the Proceeding, the parties have not agreed upon an Independent Counsel, either the Company or Indemnitee may petition a court of competent jurisdiction for resolution of any objection which shall have been made by the Company or Indemnitee to the other's selection of Independent Counsel and for the appointment as Independent Counsel of a person selected by the court or by such other person as the court shall designate, and the person with respect to whom all objections are so resolved or the person so appointed shall act as Independent Counsel under Section 10(b) hereof. Upon the due commencement of any judicial proceeding or arbitration pursuant to Section 12(a) of this Agreement, the Independent Counsel shall be discharged and relieved of any further responsibility in such capacity (subject to the applicable standards of professional conduct then prevailing).

(d) The Company agrees to pay the reasonable fees and expenses of any Independent Counsel and to fully indemnify such counsel against any and all Expenses, claims, liabilities and damages arising out of or relating to this Agreement or its engagement pursuant hereto.

11. Presumptions and Effect of Certain Proceedings.

(a) In making a determination with respect to entitlement to indemnification hereunder, the person, persons or entity making such determination shall, to the fullest extent not prohibited by law, presume that Indemnitee is entitled to indemnification under this Agreement, and the Company shall, to the fullest extent not prohibited by law, have the burden of proof to overcome that presumption by clear and convincing evidence.

(b) The termination of any Proceeding or of any claim, issue or matter therein, by judgment, order, settlement or conviction, or upon a plea of *nolo contendere* or its equivalent, shall not (except as otherwise expressly provided in this Agreement) of itself adversely affect the right of Indemnitee to indemnification or create a presumption that Indemnitee did not act in good faith and in a manner which he or she reasonably believed to be in or not opposed to the best interests of the Company or, with respect to any criminal Proceeding, that Indemnitee had reasonable cause to believe that his or her conduct was unlawful.

(c) For purposes of any determination of good faith, Indemnitee shall be deemed to have acted in good faith to the extent Indemnitee relied in good faith on (i) the records or books of account of the Enterprise, including financial statements, (ii) information supplied to Indemnitee by the officers of the Enterprise in the course of their duties, (iii) the advice of legal counsel for the Enterprise or its board of directors or counsel selected by any committee of the board of directors or (iv) information or records given or reports made to the Enterprise by an independent certified public accountant, an appraiser, investment banker or other expert selected with reasonable care by the Enterprise or its board of directors or any committee of the board of directors. The provisions of this Section 11(c) shall not be deemed to be exclusive or to limit in any way the other circumstances in which Indemnitee may be deemed to have met the applicable standard of conduct set forth in this Agreement.

(d) Neither the knowledge, actions nor failure to act of any other director, officer, agent or employee of the Enterprise shall be imputed to Indemnitee for purposes of determining the right to indemnification under this Agreement.

12. Remedies of Indemnitee.

(a) Subject to Section 12(e), in the event that (i) a determination is made pursuant to Section 10 of this Agreement that Indemnitee is not entitled to indemnification under this Agreement, (ii) advancement of Expenses is not timely made pursuant to Section 8 or 12(d) of this Agreement, (iii) no determination of entitlement to indemnification shall have been made pursuant to Section 10 of this Agreement within 30 days after the later of the receipt by the Company of the request for indemnification or the final disposition of the Proceeding, (iv) payment of indemnification pursuant to this Agreement is not made (A) within ten days after a determination has been made that Indemnitee is entitled to indemnification or (B) with respect to indemnification pursuant to Sections 4, 5 and 12(d) of this Agreement, within 30 days after receipt by the Company of a written request therefor, or (v) the Company or any other person or entity takes or threatens to take any action to declare this Agreement void or unenforceable, or institutes any litigation or other action or proceeding designed to deny, or to recover from, Indemnitee the benefits provided or intended to be provided to Indemnitee hereunder, Indemnitee shall be entitled to an adjudication by a court of competent jurisdiction of his or her entitlement to such indemnification or advancement of Expenses. Alternatively, Indemnitee, at his or her option, may seek an award in arbitration with respect to his or her entitlement to such indemnification or advancement of Expenses, to be conducted by a single arbitrator pursuant to the Commercial Arbitration Rules of the American Arbitration Association. Indemnitee shall commence such proceeding seeking an adjudication or an award in arbitration within 12 months following the date on which Indemnitee first has the right to commence such proceeding pursuant to this Section 12(a); *provided, however,* that the foregoing clause shall not apply in respect of a proceeding brought by Indemnitee to enforce his or her rights under Section 4 of this Agreement. The Company shall not oppose Indemnitee's right to seek any such adjudication or award in arbitration in accordance with this Agreement.

(b) Neither (i) the failure of the Company, its board of directors, any committee or subgroup of the board of directors, Independent Counsel or stockholders to have made a determination that indemnification of Indemnitee is proper in the circumstances because Indemnitee has met the applicable standard of conduct, nor (ii) an actual determination by the Company, its board of directors, any committee or subgroup of the board of directors, Independent Counsel or stockholders that Indemnitee has not met the applicable standard of conduct, shall create a presumption that Indemnitee has or has not met the applicable standard of conduct. In the event that a determination shall have been made pursuant to Section 10 of this Agreement that Indemnitee is not entitled to indemnification, any judicial proceeding or arbitration commenced pursuant to this Section 12 shall be conducted in all respects as a *de novo* trial, or arbitration, on the merits, and Indemnitee shall not be prejudiced by reason of that adverse determination. In any judicial proceeding or arbitration commenced pursuant to this Section 12, the Company shall, to the fullest extent not prohibited by law, have the burden of proving Indemnitee is not entitled to indemnification or advancement of Expenses, as the case may be, and the burden of proof shall be by clear and convincing evidence.

(c) To the fullest extent not prohibited by law, the Company shall be precluded from asserting in any judicial proceeding or arbitration commenced pursuant to this Section 12 that the procedures and presumptions of this Agreement are not valid, binding and enforceable and shall stipulate in any such court or before any such arbitrator that the Company is bound by all the provisions of this Agreement. If a determination shall have been made pursuant to Section 10 of this Agreement that Indemnitee is entitled to indemnification, the Company shall be bound by such determination in any judicial proceeding or arbitration commenced pursuant to this Section 12, absent (i) a misstatement by Indemnitee of a material fact, or an omission of a material fact necessary to make Indemnitee's statements not materially misleading, in connection with the request for indemnification, or (ii) a prohibition of such indemnification under applicable law.

(d) To the extent not prohibited by law, the Company shall indemnify Indemnitee against all Expenses that are incurred by Indemnitee in connection with any action for indemnification or advancement of Expenses from the Company under this Agreement, any other agreement, the Company's certificate of incorporation or bylaws or under any directors' and officers' liability insurance policies maintained by the Company to the extent Indemnitee is successful in such action, and, if requested by Indemnitee, shall (as soon as reasonably practicable, but in any event no later than 30 days, after receipt by the Company of a written request therefor) advance such Expenses to Indemnitee, subject to the provisions of Section 8. Indemnitee hereby undertakes to repay such advances to the extent the Indemnitee is ultimately unsuccessful in such action or arbitration.

(e) Notwithstanding anything in this Agreement to the contrary, no determination as to entitlement to indemnification shall be required to be made prior to the final disposition of the Proceeding.

13. **Contribution**. To the fullest extent permissible under applicable law, if the indemnification provided for in this Agreement is unavailable to Indemnitee, the Company, in lieu of indemnifying Indemnitee, shall contribute to the amounts incurred by Indemnitee, whether for Expenses, judgments, fines or amounts paid or to be paid in settlement, in connection with any claim relating to an indemnifiable event under this Agreement, in such proportion as is deemed fair and reasonable in light of all of the circumstances of such Proceeding in order to reflect (i) the relative benefits received by the Company and Indemnitee as a result of the events and transactions giving rise to such Proceeding; and (ii) the relative fault of Indemnitee and the Company (and its other directors, officers, employees and agents) in connection with such events and transactions.

14. **Non-exclusivity**. The rights of indemnification and to receive advancement of Expenses as provided by this Agreement shall not be deemed exclusive of any other rights to which Indemnitee may at any time be entitled under applicable law, the Company's certificate of incorporation or bylaws, any agreement, a vote of stockholders or a resolution of directors, or otherwise. To the extent that a change in Delaware law, whether by statute or judicial decision, permits greater indemnification or advancement of Expenses than would be afforded currently under the Company's certificate of incorporation and bylaws and this Agreement, it is the intent of the parties hereto that Indemnitee shall enjoy by this Agreement the greater benefits so afforded by such change, subject to the restrictions expressly set forth herein or therein. Except as expressly set forth herein, no right or remedy herein conferred is intended to be exclusive of any other right or remedy, and every other right and remedy shall be cumulative and in addition to every other right and remedy given hereunder or now or hereafter existing at law or in equity or otherwise. Except as expressly set forth herein, the assertion or employment of any right or remedy hereunder, or otherwise, shall not prevent the concurrent assertion or employment of any other right or remedy.

15. Primary Responsibility. The Company acknowledges that to the extent Indemnitee is serving as a director on the Company's board of directors at the request or direction of a private equity or venture capital fund or other entity and/or certain of its affiliates (collectively, the "***Secondary Indemnitors***"), Indemnitee may have certain rights to indemnification and advancement of expenses provided by such Secondary Indemnitors. The Company agrees that, as between the Company and the Secondary Indemnitors, the Company is primarily responsible for amounts required to be indemnified or advanced under the Company's certificate of incorporation or bylaws or this Agreement and any obligation of the Secondary Indemnitors to provide indemnification or advancement for the same amounts is secondary to those Company obligations. To the extent not in contravention of any insurance policy or policies providing liability or other insurance for the Company or any director, trustee, general partner, managing member, officer, employee, agent or fiduciary of the Company or any other Enterprise, the Company waives any right of contribution or subrogation against the Secondary Indemnitors with respect to the liabilities for which the Company is primarily responsible under this Section 15. In the event of any payment by the Secondary Indemnitors of amounts otherwise required to be indemnified or advanced by the Company under the Company's certificate of incorporation or bylaws or this Agreement, the Secondary Indemnitors shall be subrogated to the extent of such payment to all of the rights of recovery of Indemnitee for indemnification or advancement of expenses under the Company's certificate of incorporation or bylaws or this Agreement or, to the extent such subrogation is unavailable and contribution is found to be the applicable remedy, shall have a right of contribution with respect to the amounts paid. The Secondary Indemnitors are express third-party beneficiaries of the terms of this Section 15.

16. No Duplication of Payments. Subject to Section 15 above, the Company shall not be liable under this Agreement to make any payment of amounts otherwise indemnifiable hereunder (or for which advancement is provided hereunder) if and to the extent that Indemnitee has otherwise actually received payment for such amounts under any insurance policy, contract, agreement or otherwise.

17. Insurance. To the extent that the Company maintains an insurance policy or policies providing liability insurance for directors, trustees, general partners, managing members, officers, employees, agents or fiduciaries of the Company or any other Enterprise, Indemnitee shall be covered by such policy or policies to the same extent as the most favorably-insured persons under such policy or policies in a comparable position.

18. Subrogation. Subject to Section 15 above, in the event of any payment under this Agreement, the Company shall be subrogated to the extent of such payment to all of the rights of recovery of Indemnitee, who shall execute all papers required and take all action necessary to secure such rights, including execution of such documents as are necessary to enable the Company to bring suit to enforce such rights.

19. Services to the Company. Indemnitee agrees to serve as a director or officer of the Company or, at the request of the Company, as a director, trustee, general partner, managing member, officer, employee, agent or fiduciary of another Enterprise, for so long as Indemnitee is duly elected or appointed or until Indemnitee tenders his or her resignation or is removed from such position. Indemnitee may at any time and for any reason resign from such position (subject to any other contractual obligation or any obligation imposed by operation of law), in which event the Company shall have no obligation under this Agreement to continue Indemnitee in such position. This Agreement shall not be deemed an employment contract between the Company (or any of its subsidiaries or any Enterprise) and Indemnitee. Indemnitee specifically acknowledges that any employment with the Company (or any of its subsidiaries or any Enterprise) is at will, and Indemnitee may be discharged at any time for any reason, with or without cause, with or without notice, except as may be otherwise expressly provided in any executed, written employment contract between Indemnitee and the Company (or any of its subsidiaries or any Enterprise), any existing formal severance policies adopted by the Company's board of directors or, with respect to service as a director or officer of the Company, the Company's certificate of incorporation or bylaws or the DGCL. No such document shall be subject to any oral modification thereof.

20. **Duration**. This Agreement shall continue until and terminate upon the later of (a) ten years after the date that Indemnitee shall have ceased to serve as a director or officer of the Company or as a director, trustee, general partner, managing member, officer, employee, agent or fiduciary of any other Enterprise, as applicable; or (b) one year after the final termination of any Proceeding, including any appeal, then pending in respect of which Indemnitee is granted rights of indemnification or advancement of Expenses hereunder and of any proceeding commenced by Indemnitee pursuant to Section 12 of this Agreement relating thereto.

21. **Successors**. This Agreement shall be binding upon the Company and its successors and assigns, including any direct or indirect successor, by purchase, merger, consolidation or otherwise, to all or substantially all of the business or assets of the Company, and shall inure to the benefit of Indemnitee and Indemnitee's heirs, executors and administrators. Further, the Company shall require and cause any successor (whether direct or indirect by purchase, merger, consolidation or otherwise) to all or substantially all of the business or assets of the Company, by written agreement, expressly to assume and agree to perform this Agreement in the same manner and to the same extent that the Company would be required to perform if no such succession had taken place.

22. **Severability**. Nothing in this Agreement is intended to require or shall be construed as requiring the Company to do or fail to do any act in violation of applicable law. The Company's inability, pursuant to court order or other applicable law, to perform its obligations under this Agreement shall not constitute a breach of this Agreement. If any provision or provisions of this Agreement shall be held to be invalid, illegal or unenforceable for any reason whatsoever: (i) the validity, legality and enforceability of the remaining provisions of this Agreement (including without limitation, each portion of any section of this Agreement containing any such provision held to be invalid, illegal or unenforceable, that is not itself invalid, illegal or unenforceable) shall not in any way be affected or impaired thereby and shall remain enforceable to the fullest extent permitted by law; (ii) such provision or provisions shall be deemed reformed to the extent necessary to conform to applicable law and to give the maximum effect to the intent of the parties hereto; and (iii) to the fullest extent possible, the provisions of this Agreement (including, without limitation, each portion of any section of this Agreement containing any such provision held to be invalid, illegal or unenforceable, that is not itself invalid, illegal or unenforceable) shall be construed so as to give effect to the intent manifested thereby.

23. **Enforcement**. The Company expressly confirms and agrees that it has entered into this Agreement and assumed the obligations imposed on it hereby in order to induce Indemnitee to serve as a director or officer of the Company, and the Company acknowledges that Indemnitee is relying upon this Agreement in serving as a director or officer of the Company.

24. **Entire Agreement**. This Agreement constitutes the entire agreement between the parties hereto with respect to the subject matter hereof and supersedes all prior agreements and understandings, oral, written and implied, between the parties hereto with respect to the subject matter hereof; *provided*, *however*, that this Agreement is a supplement to and in furtherance of the Company's certificate of incorporation and bylaws and applicable law.

25. **Modification and Waiver**. No supplement, modification or amendment to this Agreement shall be binding unless executed in writing by the parties hereto. No amendment, alteration or repeal of this Agreement shall adversely affect any right of Indemnitee under this Agreement in respect of any action taken or omitted by such Indemnitee in his or her Corporate Status prior to such amendment, alteration or repeal. No waiver of any of the provisions of this Agreement shall constitute or be deemed a waiver of any other provision of this Agreement nor shall any waiver constitute a continuing waiver.

26. **Notices**. All notices and other communications required or permitted hereunder shall be in writing and shall be mailed by registered or certified mail, postage prepaid, sent by facsimile or electronic mail or otherwise delivered by hand, messenger or courier service addressed:

(a) if to Indemnitee, to Indemnitee's address, facsimile number or electronic mail address as shown on the signature page of this Agreement or in the Company's records, as may be updated in accordance with the provisions hereof; or

(b) if to the Company, to the attention of the Chief Financial Officer of the Company at 700 Chesapeake Drive, Redwood City, California 94063, or at such other current address as the Company shall have furnished to Indemnitee, with copies (which shall not constitute notice) to Mark Weeks, Cooley LLP, 3175 Hanover Street, Palo Alto, California 94304.

Each such notice or other communication shall for all purposes of this Agreement be treated as effective or having been given (i) if delivered by hand, messenger or courier service, when delivered (or if sent *via* a nationally-recognized overnight courier service, freight prepaid, specifying next-business-day delivery, one business day after deposit with the courier), or (ii) if sent *via* mail, at the earlier of its receipt or five days after the same has been deposited in a regularly-maintained receptacle for the deposit of the United States mail, addressed and mailed as aforesaid, or (iii) if sent *via* facsimile, upon confirmation of facsimile transfer or, if sent *via* electronic mail, upon confirmation of delivery when directed to the relevant electronic mail address, if sent during normal business hours of the recipient, or if not sent during normal business hours of the recipient, then on the recipient's next business day.

27. **Applicable Law and Consent to Jurisdiction**. This Agreement and the legal relations among the parties shall be governed by, and construed and enforced in accordance with, the laws of the State of Delaware, without regard to its conflict of laws rules. Except with respect to any arbitration commenced by Indemnitee pursuant to Section 12(a) of this Agreement, the Company and Indemnitee hereby irrevocably and unconditionally (i) agree that any action or proceeding arising out of or in connection with this Agreement shall be brought only in the Delaware Court of Chancery, and not in any other state or federal court in the United States of America or any court in any other country, (ii) consent to submit to the exclusive jurisdiction of the Delaware Court of Chancery for purposes of any action or proceeding arising out of or in connection with this Agreement, (iii) appoint, to the extent such party is not otherwise subject to service of process in the State of Delaware, The Corporation Trust Company, Wilmington, Delaware as its agent in the State of Delaware as such party's agent for acceptance of legal process in connection with any such action or proceeding against such party with the same legal force and validity as if served upon such party personally within the State of Delaware, (iv) waive any objection to the laying of venue of any such action or proceeding in the Delaware Court of Chancery, and (v) waive, and agree not to plead or to make, any claim that any such action or proceeding brought in the Delaware Court of Chancery has been brought in an improper or inconvenient forum.

28. **Counterparts**. This Agreement may be executed in one or more counterparts, each of which shall for all purposes be deemed to be an original but all of which together shall constitute one and the same Agreement. This Agreement may also be executed and delivered by facsimile signature and in counterparts, each of which shall for all purposes be deemed to be an original but all of which together shall constitute one and the same Agreement. Only one such counterpart signed by the party against whom enforceability is sought needs to be produced to evidence the existence of this Agreement.

29. **Captions**. The headings of the paragraphs of this Agreement are inserted for convenience only and shall not be deemed to constitute part of this Agreement or to affect the construction thereof.

(*signature page follows*)

The parties are signing this Indemnification Agreement as of the date stated in the introductory sentence.

PULMONX CORPORATION

By: ______________________________

Name: ______________________________

Title: ______________________________

[INSERT INDEMNITEE NAME]

By: ______________________________

Name: ______________________________

Address: ______________________________

____

FIRST AMENDMENT TO SUBLEASE

This First Amendment to Sublease (“**First Amendment**”) dated, for reference purposes, as of September 10, 2020 (“**Effective Date**”) is made by and between GENOMIC HEALTH, INC., a Delaware corporation (“**Sublandlord**”) and PULMONX CORPORATION, a Delaware corporation (“**Subtenant**”).

RECITALS

A. Pursuant to that certain Lease, dated as of December 27, 2019, by and between HCP LS Redwood City, LLC, a Delaware limited liability company, as “Landlord” (“**Master Landlord**”), and Sublandlord, as “Tenant” (“ **Master Lease**”), Master Landlord leases to Sublandlord, and Sublandlord leases from Master Landlord, certain premises, consisting of approximately twenty-five thousand two hundred fifty-four (25,254) rentable square feet of space (“**Master Lease Premises**”), consisting of the entire approximately 25,254 square foot building located at 200 Chesapeake Drive, Redwood City, California and shown on Exhibit A attached to the Master Lease (“**Building**”). The Master Lease Premises are more particularly described in the Master Lease.

B. Pursuant to that certain Sublease, dated as of April 8, 2020 (the “**Original Sublease**”), Sublandlord subleases to Subtenant, and Subtenant subleases from Sublandlord, a portion of the Master Lease Premises, consisting of approximately eight thousand ninety-one (8,091) rentable square feet, as more particularly shown on <u>Exhibit B</u> attached to the Sublease (the “**Original Sublease Premises**”). The Original Sublease Premises referred to in the immediately preceding sentence is sometimes referred to herein as “**Suite 200**”. The term of the Original Sublease is currently scheduled to expire on May 31,2023.

C. Subtenant desires to sublease from Sublandlord, and Sublandlord desires to sublease to Subtenant, on the terms and conditions set forth below, the remaining space in the Building, consisting of approximately seventeen thousand one hundred sixty-three (17,163) rentable square feet, as more particularly shown on <u>Exhibit A</u> attached hereto (the “**Expansion Premises**”). The Expansion Premises referred to in the immediately preceding sentence is sometimes referred to herein as “Suite 250”.

D. In addition, Sublandlord and Subtenant desire to make other amendments to the Original Sublease including to extend the term of the Original Sublease as to the Suite 200 space on the terms and conditions set forth below.

NOW, THEREFORE, in consideration of the mutual covenants and agreements set forth below, and for other valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereto agree as follows:

1. <u>Recitals</u>. The Recitals set forth above are true and correct and are incorporated into the body of this First Amendment as though set forth herein.

2. Defined Terms. Except as otherwise expressly provided herein, the capitalized terms used herein shall have the meanings set forth in the Original Sublease. From and after the date hereof, the term "**Sublease**" as used in the Original Sublease covering the Suite 200 space shall mean the Original Sublease, as amended by this First Amendment.

3. Expansion Premises. Subject to the terms and conditions set forth below, Sublandlord hereby subleases to Subtenant and Subtenant hereby subleases from Sublandlord the Expansion Premises referred to in Recital C above. Except to the extent that such meaning would clearly be inconsistent with the terms of this First Amendment, from and after the Expansion Premises Commencement Date (defined in Section 4 below) wherever the term "Sublease Premises" is used in the Original Sublease, such term shall include Suite 200 and Suite 250, and the total rentable square footage of the Sublease Premises shall total twenty-five thousand two hundred fifty-four (25,254) rentable square feet, provided, however, at such time following the Expansion Premises Commencement Date that Subtenant is subleasing only Suite 250 and not Suite 200, the "Sublease Premises: shall be deemed to mean only Suite 250. At such time as Subtenant is subleasing Suite 200 and Suite 250, the description of the Sublease Premises (containing Suite 200 and Suite 250) shall be as shown on Exhibit A attached to the Master Lease. Sublandlord and Subtenant have agreed to use the square footage numbers set forth in the Original Sublease and this First Amendment as the basis for calculating monthly installments of Base Rent and Subtenant's Share. The Base Rent and Additional Rent payable under the Original Sublease and this First Amendment shall not be subject to revision in the event the actual square footage of Suite 200 or Suite 250 is more or less than the numbers used as the basis for calculation of such Base Rent and Additional Rent.

4. Expansion Premises Sublease Term. The initial term of the Sublease with respect to the Expansion Premises ("**Expansion Premises Sublease Term**") shall be for a term of forty-eight (48) months (the first month of which shall include the partial month in which the Expansion Premises Commencement Date occurs if such date is not the first day of a calendar month, as described below), commencing on the date Master Landlord consents to the subletting of Suite 250 by Sublandlord to Subtenant as provided in Section 19 below ("**Expansion Premises Commencement Date**") and expiring on the last day of the forty-eighth (48th) full calendar month following the Expansion Premises Commencement Date (the "**Expansion Premises Ending Date**"), subject to extension or sooner termination as provided in the Sublease. If the Expansion Premises Commencement Date is other than the first day of a calendar month, the first month of the Expansion Premises Sublease Term shall include the remainder of the calendar month in which the Expansion Premises Commencement Date occurs plus the first full calendar month thereafter. When the Expansion Premises Commencement Date has been determined, Sublandlord and Subtenant shall specify the same in writing, which writing shall be deemed incorporated herein; provided, however, that a delay in memorializing such date in writing shall not delay the Expansion Premises Commencement Date.

5. Option to Extend Expansion Premises Sublease Term. Sublandlord hereby grants to Subtenant the option to extend the Expansion Premises Sublease Term with respect to Suite 250 only for one (1) additional period commencing on the date one (1) day following the Expansion Premises Ending Date and ending on the date twelve (12) months thereafter, unless

sooner terminated in accordance with the terms of this Sublease (the "**Expansion Premises Extended Term**"), on the following terms and conditions:

A. Subtenant shall give Sublandlord written notice of its exercise of the option "**Exercise Notice**") to extend Expansion Premises Sublease Term for the Expansion Premises Extended Term no earlier than twelve (12) months nor later than nine (9) months before the expiration of the Expansion Premises Sublease Term, time being of the essence. Within ten (10) days following receipt of Subtenant's Exercise Notice, Sublandlord shall provide written notice to Subtenant accepting or rejecting Subtenant's request to extend the Expansion Premises Ending Date. If Sublandlord timely gives Subtenant written notice rejecting Subtenant's request to extend the Expansion Premises Ending Date, then notwithstanding anything herein to the contrary, Subtenant's Exercise Notice shall be deemed void and of no force and effect and Subtenant shall have no right to extend the Expansion Premises Sublease Term.

B. Subtenant may not extend the Expansion Premises Sublease Term pursuant to this Section 5 if Subtenant is in default beyond any applicable notice and cure period in the performance of any of the terms and conditions of the Sublease, at the time of Subtenant's Exercise Notice or on the date that the Expansion Premises Extended Term is to commence or if Subtenant shall have assigned or otherwise transferred its interest in the Sublease and/or Expansion Premises, or any portion thereof, to any third party other than an assignment of Subtenant's rights and obligations under the Sublease to (i) an entity controlling, controlled by or under common control with Subtenant or (ii) a successor entity related to Subtenant by merger, consolidation, or non-bankruptcy reorganization or (iii) an entity that acquires all or substantially all of the assets or stock of Subtenant; provided that in the case of an assignment pursuant to clause (ii) or (iii) immediately above, the successor entity has a net worth not less than the greater of (x) the net worth of Subtenant at the time that Subtenant executes this First Amendment, or (y) the net worth of Subtenant as of the effective date of such assignment or subletting (each, a "**Permitted Transferee**") (unless Sublandlord has waived such restriction in any written consent to such assignment, which waiver may be withheld in Sublandlord's sole and absolute discretion) and such Permitted Transferee is approved by Master Landlord. In the event of an assignment of the Sublease by Subtenant to a Permitted Transferee, Subtenant shall not be released or relieved of any of its obligations under the Sublease and such Permitted Transferee shall not be permitted to assign or sublet the Sublease or the Expansion Premises, or any portion thereof.

C. Once Subtenant delivers the Exercise Notice to Sublandlord, such notice shall operate to extend the Expansion Premises Sublease Term, except as otherwise provided in the last two sentences of Section 5.A. above. In the event Subtenant's exercise of the option to extend the Expansion Premises Sublease Term is not deemed rescinded and rendered null and void as provided in Section 5.A above, all terms and conditions of this Sublease, shall apply to Subtenant's lease of the Expansion Space during the Expansion Premises Extended Term, except that the monthly Base Rent payable by Subtenant with respect to the Expansion Premises for the Expansion Space Extended Term shall be as set forth in Section 8(a) of this First Amendment, there shall be no further rights to extend the Expansion Premises Sublease Term, and Sublandlord shall have no obligation to construct any improvements on, in or around the Expansion Premises or Suite 200 or in the Building or to provide any improvement allowance.

D. Upon the extension of the Expansion Premises Sublease Term pursuant to this Section 5, the term "Expansion Premises Sublease Term" or "Sublease Term" as used in the Sublease, and applicable to the Expansion Premises shall thereafter include the Expansion Premises Extended Term and the expiration date of the Sublease, with respect to the Expansion Premises shall be the expiration date of the Expansion Premises Extended Term.

6. Extension of Sublease Term as to Suite 200. Commencing on the Expansion Premises Commencement Date, the term of the Sublease solely as to Suite 200 shall be extended to expire on May 31, 2024, the "Sublease Term" or "Term" or words of similar import as used in the Original Sublease and this First Amendment as to Suite 200 shall end on May 31, 2024, and the "Expiration Date", "ending date of the Sublease" or words of similar import as used in the Original Sublease shall mean, as to Suite 200 only, May 31, 2024, all subject to sooner termination as provided in the Original Sublease, and Sublandlord an Subtenant's right to terminate the Sublease early as to Suite 200 (as provided in Section 11 of the Original Sublease) shall continue in full force and effect in accordance with the provisions of such Section 11 of the Original Sublease. The monthly Base Rent to be paid by Subtenant to Sublandlord each month solely with respect to Suite 200 during the period commencing on June 1, 2023 and ending on May 31, 2024, shall be equal to Forty-Six Thousand One Hundred Ninety-Nine and 61/100 Dollars ($46,199.61).

7. Alterations. As provided in Section 3.4 of the Original Sublease, Subtenant shall have no right to construct or install, or cause to be constructed or installed, any Alterations, additions or improvements in or to Suite 200 or Suite 250 unless such Alterations are approved by Sublandlord such consent not to be unreasonably withheld, conditioned or delayed, and Master Landlord. To the extent permitted by Master Landlord and subject to all the terms and conditions set forth in the Tenant Work Letter attached as Exhibit B to the Master Lease (the "**Work Letter**"), as modified herein, Master Landlord shall provide to Subtenant (or to Sublandlord for disbursement to Subtenant) a tenant improvement allowance ("**Allowance**") in the amount of Six Hundred Thirty-One Thousand Three Hundred Fifty and 00/100 Dollars ($631,350.00) (which equates to Twenty-Five Dollars ($25.00) per rentable square feet of the aggregate rentable square footage of Suite 200 and Suite 250), and such Allowance shall be applied and disbursed in accordance with the provisions of the Work Letter. Subtenant acknowledges and agrees that the availability and disbursement of such Allowance to Subtenant is conditioned upon (i) Master Landlord making such Allowance available to Subtenant or to Sublandlord for disbursement to Subtenant for its Alterations, additions and improvements to Suite 200 and/or Suite 250 and (ii) the satisfaction of the conditions to disbursement of such Allowance set forth in the Work Letter, including, without limitation, the condition that any portion of the Allowance that has not been requested within the first eighteen (18) months of the term of the Master Lease shall revert to the Master Landlord and cannot be used by Subtenant. The Work Letter attached as Exhibit B to the Master Lease is incorporated herein by reference and made a part hereof, except that, for purposes of the design, permitting and construction of Alterations, additions or improvements in or on Suite 200 and/or Suite 250 by or on behalf of Subtenant and/or the disbursement of the Allowance to Subtenant, all references in such Work Letter to Tenant shall mean Subtenant. Subtenant shall timely perform all of its respective obligations set forth in the Work Letter. Except for any of Sublandlord's obligations to repair and maintain Suite 200 and/or

Suite 250 set forth in the Sublease (and in the Master Lease to the extent not assumed by Subtenant under the Sublease), Sublandlord shall have no obligation to alter, improve or refurbish Suite 200 or the Expansion Premises as a condition to Subtenant's leasing of the Expansion Premises or extending the Sublease Term of the Original Sublease as to Suite 200 as provided above. In addition, as a condition to Subtenant's subleasing of the Expansion Premises or the extension of the Sublease Term of the Original Sublease, Sublandlord shall have no obligation to provide any improvement allowance to Subtenant except as provided in this Section 7. All costs of Alterations, additions or improvements performed, or caused to be performed, by or on behalf of Subtenant in excess of the Allowance disbursed to Subtenant shall be borne solely by Subtenant. Sublandlord hereby approves the drawings for Alterations attached hereto as Exhibit B and the same are also approved as the Final Space Plan (as defined in the Work Letter). Notwithstanding the terms of the immediately preceding sentence, such Alterations referred to in the immediately preceding sentence shall not be undertaken, or caused to be undertaken, by Subtenant unless Master Landlord approves the same in writing and also agrees in writing that such Alterations shall not have to be removed by Subtenant by the expiration or earlier termination of the Sublease. All Alterations that may be installed in or about the Sublease Premises by or on behalf of Subtenant in accordance with the drawings for Alterations attached hereto as Exhibit B, shall become the property of Master Landlord and remain in place at the Sublease Premises following the expiration or earlier termination of the Sublease as to Suite 200 and Suite 250, as applicable, subject to Sublandlord's final review and approval (not to be unreasonably withheld, conditioned or delayed) of final plans and specifications for such Alterations and Master Landlord's written approval of such Alterations and written confirmation that such Alterations shall not have to be removed by Subtenant by the expiration or earlier termination of the Sublease.

8. Base Rent for Expansion Premises.

(a) Commencing on the Expansion Premises Commencement Date, the monthly installments of Base Rent payable under the Sublease for the Expansion Premises for the Expansion Premises Sublease Term, shall be set forth in this Section 8 below, payable in advance, on the first day of each calendar month, and continuing through the remainder of the Expansion Premises Sublease Term. The Base Rent set forth in the schedule below shall be payable by Subtenant without deduction, offset, prior notice or demand in lawful money of the United States to Sublandlord via wire transfer to the account noted on Exhibit C to the Original Sublease, or at such other place or places as Sublandlord may from time to time direct. Subject to the foregoing, Base Rent shall be paid in the same manner and shall be subject to the same requirements as set forth in the Original Sublease as it relates to Base Rent payable for Suite 200:

Expansion Premises Sublease Term Months	**Annualized Base Rent**	**Monthly Installments of Base Rent for Expansion Premises**	**Approximate Monthly Base Rent Rates Per Rentable Square Foot of Expansion Premises**
Expansion Premises Commencement Date - 02/14/2021	$0.00	$0.00	$0.00
02/15/2021 – 05/31/2021	$1,060,673.40 (to be prorated for partial 12-month period)	$88,389.45	$5.15/RSF
06/01/2021 – 05/31/2022	$1,097,821.24	$91,485.10	$5.33/RSF
06/01/2022 – 05/31/2023	$1,135,910.04	$94,659.17	$5.52/RSF
06/01/2023 – 05/31/2024	$1,175,987.52	$97,998.96	$5.71/RSF
06/01/2024 – last day of 48th full calendar month following the Expansion Premises Commencement Date	$1,217,199.96	$101,433.33	$5.91/RSF
Expansion Premises Extended Term Commencement Date – 05/31/2025 (if applicable)	$1,217,199.96 (to be prorated for partial 12-month period)	$101,433.33	$5.91/RSF
06/01/2025 – expiration of Expansion Premises Extended Term (if applicable)	$1,260,450.72	$105,037.56	$6.12/RSF

Concurrently with Subtenant's execution of this First Amendment, Subtenant shall pay to Sublandlord in cash or certified funds the monthly installment of Base Rent due for the period February 15, 2021 through February 28, 2021 (i.e., the amount of Forty-Four Thousand One Hundred Ninety-Four and 73/100 Dollars ($44,194.73)).

(b) In addition to the payment of the monthly Base Rent with respect to Suite 250 during the Expansion Premises Sublease Term, as the same may be extended, Subtenant shall pay to Sublandlord with respect to the Expansion Premises (i) Subtenant's Share (stated in Section 5.3(a) of the Original Sublease, as amended pursuant to Section 7 below) of Direct Expenses (as defined in the Master Lease) and (ii) all other costs, expenses and charges, and all other sums and amounts, payable to Sublandlord under the provisions of the Sublease. All such costs, expenses, charges, sums and amounts shall be payable at the times, in the manner and at the place as set forth in the Sublease.

(c) Monthly Base Rent and Additional Rent for Suite 200, including, without limitation, Subtenant's Share of Direct Expenses payable by Subtenant to Sublandlord under the Sublease, with respect to Suite 200 only for the Sublease Term, as the same may be extended for twelve months pursuant to Section 6 of this First Amendment, shall be in accordance with the terms and conditions of the Original Sublease, except that monthly Base Rent payable by Subtenant to Sublandlord each month solely with respect to Suite 200 during the period commencing on June 1, 2023 and ending on May 31, 2024, shall be equal to Forty-Six Thousand One Hundred Ninety-Eight and 78/100 Dollars ($46,198.78).

(d) During such time that Subtenant is subleasing Suite 200 and Suite 250, all references to "Base Rent" in the Master Lease and incorporated into the Sublease by reference shall be deemed references to the Base Rent described in Section 5.2 of the Original Sublease, as amended by Section 8(c) of this First Amendment, and described in this Section 8(a) above.

9. Subtenant's Share.

(a) For purposes of the Sublease, during the period that Subtenant is subleasing from Sublandlord Suite 200 but not Suite 250, "Subtenant's Share" shall be thirty-two and four one hundredths percent (32.04%) of the Building and one and twenty-six hundredths percent (1.26%) of the Project.

(b) For purposes of the Sublease, during the period that Subtenant is subleasing from Sublandlord Suite 200 and Suite 250, "Subtenant's Share" shall be one hundred percent (100.0%) of the Building and three and ninety-three one hundredths percent (3.93%) of the Project.

(c) For purposes of the Sublease, during the period that Subtenant is subleasing form Sublandlord Suite 250 but not Suite 200, "Subtenant's Share" shall be sixty-seven and ninety-six one hundredths percent (67.96%) of the Building and two and sixty-seven one hundredths percent (2.67%) of the Project.

(d) During the remaining Sublease Term, as the same may be extended, Subtenant shall continue to be obligated to pay to Sublandlord Subtenant's Share of Direct Expenses in accordance with the provisions of the Sublease.

10. Use. Subtenant shall use the Expansion Premises solely for the uses expressly permitted under Section 3.2 of the Original Sublease and, to the extent expressly approved by Master Landlord in writing, for mechanical assembly of medical devices within a portable controlled environment room. Subject to the terms of the immediately preceding sentence, the provisions of Section 3.4 of the Original Sublease shall be applicable to Subtenant's sublease of the Expansion Premises. Subtenant hereby agrees and warrants that it has been given the opportunity to inspect the condition of the Expansion Premises and the suitability of same for Subtenant's purposes, and Subtenant does hereby waive and disclaim any objection to, cause of action based upon, or claim that its obligations hereunder should be reduced or limited because of the suitability of the same for Subtenant's purposes. Notwithstanding the foregoing, Sublandlord shall deliver the Expansion Premises to Subtenant vacant of all occupants and personal property, and clean and free of debris. Further, Sublandlord represents and warrants to Subtenant that, to Sublandlord's actual knowledge as of the Effective Date, the Building's systems, including HVAC, electrical, plumbing, fire alarm and roof (collectively, the "Building Systems"), are in good operating condition and repair. The phrase "to Sublandlord's actual knowledge" shall mean the current actual knowledge of Rick Sage, Director of Lease Administration and Projects, as of the Effective Date of this Sublease, without any investigation or duty of inquiry, and without any knowledge of any other person being imputed to Rick Sage. Neither Sublandlord nor Rick Sage shall be charged with constructive, inquiry, imputed or deemed knowledge. In the event of any breach of any representation or warranty of Sublandlord set forth herein, Subtenant agrees that Rick Sage shall not be personally liable for any damages, losses, liabilities, claims, costs or expenses suffered or incurred by Subtenant in connection with such breach of such representation or warranty.

11. Parking Spaces.

(a) Subject to the terms and conditions of Article 28 of the Master Lease, during the period that Subtenant is subleasing only Suite 200, Subtenant shall be entitled to the use twenty-four (24) unreserved parking spaces (i.e., 3 unreserved parking spaces for every 1,000 rentable square feet of Suite 200).

(b) Subject to the terms and conditions of Article 28 of the Master Lease, during the period that Subtenant is subleasing Suite 200 and Suite 250 Subtenant shall be entitled to the use seventy- five (75) unreserved parking spaces (i.e., 3 unreserved parking spaces for every 1,000 rentable square feet of the combined Suite 200 and Suite 250).

(c) Subject to the terms and conditions of Article 28 of the Master Lease, during the period that Subtenant is subleasing only Suite 250, Subtenant shall be entitled to the use fifty-one (51) unreserved parking spaces (i.e., 3 unreserved parking spaces for every 1,000 rentable square feet of Suite 250).

12. Security Deposit. Concurrently with the execution of this First Amendment, Subtenant shall deliver to Sublandlord an additional One Hundred Two Thousand Nine Hundred Sixty- Eight and 02/100 Dollars ($102,968.02) and such amount, when added to the Forty-Four Thousand Six Hundred Sixty-Two and 32/100 Dollars ($44,662.32) Security Deposit previously delivered by Subtenant to Sublandlord, shall be the Security Deposit under the Sublease, and such

sum (totaling One Hundred Forty-Seven Thousand Six Hundred Thirty and 344/100 Dollars ($147,630.34) shall be held and applied by Sublandlord in accordance with the provisions of Section 5.4 of the Sublease. If, at the expiration of the Sublease Term, as extended, as to Suite 200, Subtenant is not in breach or default under any provision(s) of the Sublease, then Sublandlord shall within thirty (30) days refund to Subtenant from the Security Deposit the sum of Forty-Six Thousand One Hundred Ninety-Seven and 01/100 Dollars ($46,197.01). The remaining portion of the Security Deposit not so refunded as provided in the immediately preceding sentence shall continue to be held by Sublandlord and disbursed in accordance with the provisions of Section 5.4 of the Original Sublease.

13. Intentionally Deleted.

14. Signage. Subject to Sublandlord's prior written approval, which shall not be unreasonably withheld, conditioned or delayed, and the prior written approval of Master Landlord, and provided that all signs are in keeping with the quality, design and style of the Building and Project, Subtenant, at its sole cost and expense, shall have the right to install Subtenant identification signage at the entrance to Suite 250 and such other signage as the Master Landlord may approve in writing. Such signage referred to in the immediately preceding sentence shall be deemed part of the "Subtenant Signage" referred to in Section 16(a) of the Original Sublease and subject to the terms and conditions of Section 16 of the Original Sublease. Upon the expiration or earlier termination of the Sublease Term as extended, with respect to Suite 200, Subtenant shall, at its sole cost and expense, remove all Subtenant's Signage applicable to Suite 200 and restore any and all damage caused by such removal. Upon the expiration or earlier termination of the Sublease, with respect to Suite 250, Subtenant shall, at its sole cost and expense, removal all Subtenant's Signage applicable to Suite 250 and restore any and all damage caused by such removal.

15. Additional Sublease Modifications.

(a) With respect to Section 1.2 of the Master Lease incorporated into the Sublease by reference, the parties hereto agree that (i) at such time as Subtenant is subleasing Suite 200 and Suite 250, the aggregate square footage of Suite 200 and Suite 250 shall be approximately 25,254 rentable square feet and (ii) at such time as Subtenant is subleasing only Suite 250, the aggregate square footage of the such Suite 250 shall be approximately 17,163 rentable square feet.

(b) Section 2.3(h) of the Original Sublease is hereby amended to provide that, (i) at such time as Subtenant is subleasing Suite 200 and Suite 250, Subtenant's obligation to maintain and repair the Building Systems, including HVAC, main electrical, plumbing and fire/life-safety systems pursuant to Section 7.2 of the Master Lease incorporated herein by reference shall be with respect to those Building Systems, including HVAC, main, electrical, plumbing and fire/life safety systems, that serve Suite 200 and/or Suite 250, and (ii) at such time as Subtenant is subleasing only Suite 250, Subtenant's obligation to maintain and repair the Building Systems, including HVAC, main electrical, plumbing and fire/life-safety systems pursuant to Section 7.2 of the Master Lease incorporated herein by reference shall be only with respect to those Building

Systems, including HVAC, main, electrical, plumbing and fire/life safety systems, that exclusively serve Suite 250 (and not any Building Systems that serve Suite 200).

(c) During the period that Subtenant is subleasing Suite 200 and Suite 250, there shall be no “Reserved Premises” as described in Section 2.4 of the Original Sublease, and during the period that Subtenant is subleasing only Suite 250, the “Reserved Premises” (as described in Section 2.4 of the Original Sublease) shall mean Suite 200.

(d) The provisions of Section 4.1(a) of the Original Sublease (concerning early occupancy right in favor of Subtenant) shall not apply to the Expansion Premises.

(e) For purposes of Section 4.2 of the Original Sublease, (i) with respect to Suite 200, the Expiration Date or earlier termination of the Sublease shall mean the date that the Sublease expires or earlier terminates as to Suite 200 and (ii) with respect to Suite 250, the Expiration Date or earlier termination of the Sublease shall mean the date that this First Amendment expires or terminates as to Suite 250.

(f) All other terms and conditions of the Original Sublease shall apply to the Expansion Premises unless inconsistent with the terms of this First Amendment or otherwise expressly provided in this First Amendment.

16. Brokers. Each party represents and warrants to the other party that it has not had dealings in any manner with any real estate broker, finder or other person with respect to the Expansion Premises and the negotiation and execution of this First Amendment or the extension of the Sublease Term as to Suite 200. Subtenant shall indemnify, defend and hold harmless Sublandlord from all damage, loss, liability and expense (including attorneys’ fees and related costs) arising out of or resulting from any claims for commissions or fees that may or have been asserted against Sublandlord by any broker, finder or other person with whom Subtenant has or purportedly has dealt with in connection with the Expansion Premises and the negotiation and execution of this First Amendment, and the extension of the Sublease Term as to Suite 200. Sublandlord shall indemnify, defend and hold harmless Subtenant from all damage, loss, liability and expense (including attorneys’ fees and related costs) arising out of or resulting from any claims for commissions or fees that may or have been asserted against Subtenant by any broker, finder or other person with whom Sublandlord has or purportedly has dealt with in connection with the Expansion Premises and the negotiation and execution of this First Amendment, and the extension of the Sublease Term as to Suite 200.

17. **Intentionally Deleted.**

18. Early Termination. The early termination provisions set forth in Section 11 of the Original Sublease shall not apply to any early termination of the sublease of the Expansion Premises by Subtenant. The provisions of Section 11 of the Original Sublease shall apply solely to Suite 200.

19. Condition Precedent to Sublease of the Expansion Premises.

19.1 Master Landlord Consent to Sublease of Expansion Premises. The submission of this First Amendment for examination by Subtenant does not constitute an option or offer to sublease the Expansion Premises. The effectiveness of the subletting of the Expansion Premises contemplated under this First Amendment (and the extension of the Sublease Term as to Suite 200 as provided in Section 6 above) is expressly conditioned upon Master Landlord's consent to the subletting of the Expansion Premises to Subtenant (and the extension of the Sublease Term as to Suite 200 as provided in Section 6 above) pursuant to the terms of this First Amendment (with the provisions substantially similar to the clauses in (i) and (ii) of Section 19.2 below included in such Master Landlord's consent unless waived in writing by Subtenant). Sublandlord shall use commercially reasonable efforts to obtain such consent as soon as reasonably practicable following the execution of this First Amendment by Sublandlord and Subtenant. Notwithstanding the foregoing, Sublandlord shall have no liability whatsoever to Subtenant if Sublandlord is unable to obtain such consent from Master Landlord. In the event that Master Landlord's consent is not obtained on or before September 30, 2020, either Sublandlord or Subtenant shall have the right to terminate this First Amendment (but not the Original Sublease) by providing written notice thereof to the other unless Master Landlord's consent is obtained prior to the giving of any such notice, in which event such notice of termination pursuant to this Section 19 shall be of no force or effect. In the event such written termination notice is given following September 30, 2020 and prior to Master Landlord's consent being obtained, this First Amendment shall be deemed null and void and neither Sublandlord nor Subtenant shall have any liability or obligations to the other hereunder, except that Sublandlord shall promptly return to Subtenant any prepayment of Rents or other sums paid to Sublandlord in connection with the subletting of the Expansion Premises. For purposes of this Section 19, "Master Landlord's consent" shall mean the date upon which Master Landlord's unconditional consent to this Sublease has been obtained or, in the event such consent is conditional, the date upon which such conditions have been fully satisfied (or waived by Master Landlord).

19.2 Additional Terms to Include in Master Landlord's Consent. Sublandlord shall use commercially reasonable efforts to ensure that the Master Landlord's consent includes the following provisions: (i) Master Landlord agrees to make the $631,350.00 Allowance referred to in Section 2.1 of the Work Letter attached as Exhibit B to the Master Lease (and referred to in Section 7 of this First Amendment) available to Subtenant to pay or reimburse Subtenant for costs that Subtenant intends to incur in connection with the design, permitting and construction or installation of certain Alterations, additions or improvements that Subtenant desires to undertake, or cause to be undertaken, in connection with Suite 200 and/or Suite 250, which such Allowance shall be made available to Subtenant in accordance with the terms and conditions set forth in the Work Letter referred to above, (ii) Subtenant shall have the right to occupy and use the Expansion Premises for the permitted uses applicable to Suite 200 under the Master Lease and for mechanical assembly of medical devices with a portable controlled environment room, (iii) Master Landlord agrees to approve the drawings attached as Exhibit B hereto as the Final Space Plan (as defined in the Work Letter), (iv) Master Landlord will not unreasonably withhold, condition or delay its consent to Final Working Drawings based on the plans attached as Exhibit B, and (v) the Master Landlord will not require removal and restoration of Alterations set forth on Exhibit B hereto at the end of the Sublease Term.

20. OFAC. Subtenant represents, warrants and covenants that neither Subtenant nor any of its partners, officers, directors, members or shareholders (i) is listed on the Specially Designated Nationals and Blocked Persons List maintained by the Office of Foreign Asset Control, Department of the Treasury ("OFAC") pursuant to Executive Order No. 13224, 66 Fed. Reg. 49079 (Sept. 25, 2001)("Order")and all applicable provisions of Title III of the USA Patriot Act (Public Law No. 107-56 (October 26, 2001)); (ii) is listed on the Denied Persons List and Entity List maintained by the United States Department of Commerce; (iii) is listed on the List of Terrorists and List of Disbarred Parties maintained by the United States Department of State, (iv) is listed on any list or qualification of "Designated Nationals" as defined in the Cuban Assets Control Regulations 31 C.F.R. Part 515; (v) is listed on any other publicly available list of terrorists, terrorist organizations or narcotics traffickers maintained by the United States Department of State, the United States Department of Commerce or any other governmental authority or pursuant to the Order, the rules and regulations of OFAC (including without limitation the Trading with the Enemy Act, 50 U.S.C. App. 1-44; the International Emergency Economic Powers Act, 50 U.S.C. §§ 1701-06; the unrepealed provision of the Iraq Sanctions Act, Publ.L. No. 101-513; the United Nations Participation Act, 22 U.S.C. § 2349 aa-9; The Cuban Democracy Act, 22 U.S.C. §§ 60-01-10; The Cuban Liberty and Democratic Solidarity Act, 18.U.S.C. §§ 2332d and 233; and The Foreign Narcotic Kingpin Designation Act, Publ. L. No. 106-120 and 107-108, all as may be amended from time to time); or any other applicable requirements contained in any enabling legislation or other Executive Orders in respect of the Order (the Order and such other rules, regulations, legislation or orders are collectively called the "Orders"); (vi) is engaged in activities prohibited in the Orders; or (vii) has been convicted, pleaded nolo contendere, indicted, arraigned or custodially detained on charges involving money laundering or predicate crimes to money laundering, drug trafficking, terrorist-related activities or other money laundering predicate crimes or in connection with the Bank Secrecy Act (31 U.S.C. §§ 5311 et. seq.).

21. CASp Inspection Disclosure. Sublandlord and Subtenant acknowledge and agree that, to Sublandlord's actual knowledge (as of the Effective Date), the Expansion Premises have not been inspected by a Certified Access Specialist ("**CASp**") pursuant to Section 1938 of the Civil Code. The parties further agree as follows:

Pursuant to California Civil Code Section 1938(e), Sublandlord hereby further discloses to Subtenant the following: "A Certified Access Specialist (CASp) can inspect the subject premises and determine whether the subject premises comply with all of the applicable construction-related accessibility standards under state law. Although state law does not require a CASp inspection of the subject premises, the commercial property owner or lessor may not prohibit the lessee or tenant from obtaining a CASp inspection of the subject premises for the occupancy or potential occupancy of the lessee or tenant, if requested by the lessee or tenant. The parties shall mutually agree on the arrangements for the time and manner of the CASp inspection, the payment of the fee for the CASp inspection, and the cost of making any repairs necessary to correct violations of construction-related accessibility standards within the premises."

All obligations with respect to the CASp shall be governed by Section 14 of the Original Sublease and shall apply to Suite 200 and Suite 250.

22. Sublease Terms. Except as otherwise modified herein, the terms and conditions of the Original Sublease shall remain unmodified and in full force and effect. In the event of any conflict or inconsistency between the terms of this First Amendment and the terms of the Original Sublease, the terms of this First Amendment shall control.

23. General.

23.1 Counterparts. This First Amendment may be executed in counterparts, each of which shall be deemed an original for all purposes and together shall constitute one instrument. Furthermore, Sublandlord and Subtenant agree that transmission of this First Amendment via e-mail in a "PDF" format shall be deemed transmission of the original First Amendment for all purposes.

23.2 Interpretation of First Amendment Provisions. This First Amendment shall not be construed either for or against Subtenant or Sublandlord but shall be construed in accordance with the general tenor of the language to reach a fair and equitable result.

23.3 Entire Agreement. The Original Sublease (together with all exhibits attached thereto), as amended by this First Amendment, together with all exhibits attached hereto, and the Master Landlord's consent to such Original Sublease, is the entire agreement between Sublandlord and Subtenant with respect to Suite 200 and the Expansion Premises, and there are no binding agreements or representations between Sublandlord and Subtenant except as expressed therein and herein. Any agreements, warranties or representations not expressly contained therein or herein shall in no way bind either Sublandlord or Subtenant, and Sublandlord and Subtenant expressly waive all claims for damages by reason of any statement, representation, warranty, promise or agreement, if any, not contained in the documents referred to in the first sentence of this Section 23.3. No addition to, or modification of, any term or provision of the Sublease, shall be effective until and unless set forth in a written instrument signed by both Sublandlord and Subtenant.

23.4 Exhibits. All exhibits attached to this First Amendment shall be deemed to be incorporated herein by the individual reference to each such exhibit, and all such exhibits shall be deemed a part of this First Amendment as though set forth in full in the body of this First Amendment.

23.5 Representations and Warranties of Subtenant. Subtenant, with the understanding that Sublandlord is relying upon the following representations and warranties of Subtenant in entering into this First Amendment, represents and warrants to and for the benefit of Sublandlord as follows:

a. Subtenant is Holder of Leasehold. Subtenant is the "Subtenant" under the Original Sublease and the sole holder of the subleasehold estate in Suite 200 created under the Original Sublease.

b. No Assignment. Subtenant has not voluntarily, by operation of law or otherwise: (i) assigned the Original Sublease or any of the interest of Subtenant in or under the Original Sublease; (ii) sublet Suite 200 or any part thereof; (iii) allowed the occupancy or use of Suite 200, or any portion of Suite 200, by any person or entity other than the employees of Subtenant; (iv) hypothecated, mortgaged or granted any security interest in all or any portion of the subleasehold estate in Suite 200 created under the Original Sublease; (v) created any lien or encumbrance, whether voluntary, involuntary or by operation of law, upon all or any portion of the subleasehold estate in Suite 200 created under the Original Sublease; or (vi) divested itself of all or any portion of the subleasehold estate in Suite 200 created under the Original Sublease.

c. Authority. The person(s) who has (have) executed this First Amendment on behalf of Subtenant are authorized to execute this First Amendment on behalf of Subtenant and to bind Subtenant to the covenants and provisions of this First Amendment by her, his or their execution.

The representations and warranties of Subtenant set forth in this Section 23.5 shall survive the execution and delivery of this First Amendment.

23.6 Choice of Law. The terms and provisions of this First Amendment shall be construed in accordance with, and governed by, the laws of the State of California without application of any choice of laws provisions.

23.7 Attorneys' Fees. If Sublandlord or Subtenant fails to perform any of its obligations under this First Amendment or if any dispute arises between Sublandlord and Subtenant concerning the meaning or interpretation of any provision of the Sublease, then the prevailing party shall be entitled to recover and receive from the defaulting party or the party not prevailing in such dispute, as the case may be, all costs and expenses incurred by the prevailing party on account of such default and/or in enforcing or establishing the rights of the prevailing party under the Sublease, including, without limitation, court costs, attorneys' fees and disbursements. Any such attorneys` fees and other expenses incurred by the prevailing party in enforcing a judgment in its favor under the Sublease, shall be recoverable separately from and in addition to any other amount included in such judgment, and such attorneys` fees obligation is intended to be severable from the other provisions the Sublease, and to survive and not be merged into any such judgment.

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IN WITNESS WHEREOF, Sublandlord and Subtenant have caused this First Amendment to be executed as of the day and year written below.

SUBLANDLORD:

GENOMIC HEALTH, INC.,
a Delaware corporation

By:	/s/ Scott Coward
Name:	Scott Coward
Title:	Authorized Signatory
Dated:	9/11/2020

SUBTENANT:

PULMONX CORPORATION,
a Delaware corporation

By:	/s/ Derrick Sung
Name:	Derrick Sung
Title:	Chief Financial Officer
Dated:	9/11/2020

EXHIBIT A

FLOOR PLAN SHOWING EXPANSION PREMISES

[see attached]

Exhibit A - 250 Chesapeake Drive (existing space plan)

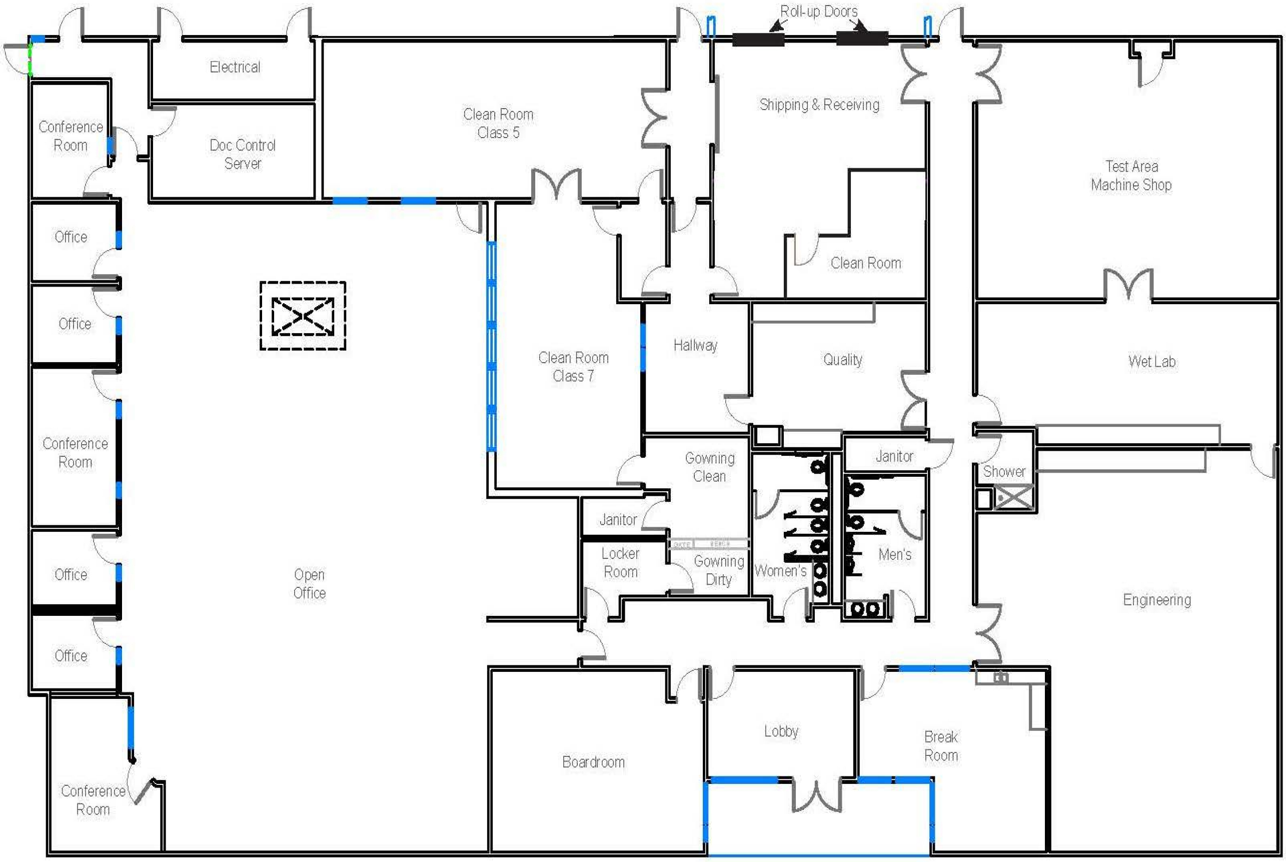


EXHIBIT B

FINAL SPACE PLAN

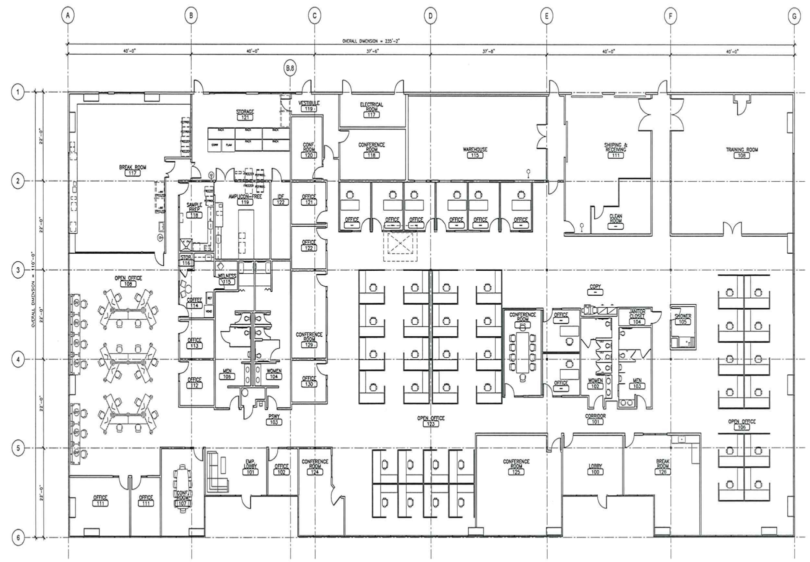
[see attached]

TENANT IMPROVEMENTS

Folio Project #2019

pulmonx

200-250 Chesapeake Dr., Redwood City, CA



SUMMARY

7 CONFERENCE ROOMS
16 OFFICES
36 8x8 WORKSTATIONS

folio architects

4023 del rancho drive, suite 300 Santa Clara, CA 95054 P 408.500.0005 F 408.500.5427 www.folioarchitects.com

PROPOSED FLOOR PLAN SD-1

1/8" = 1'-0" 7/22/2020

Consent of Independent Registered Public Accounting Firm

Pulmonx Corporation
Redwood City, California

We hereby consent to the use in the Prospectus constituting a part of this Registration Statement of our report dated February 21, 2020, except for the “Reverse Stock Split” paragraph of Note 2, as to which the date is September 24, 2020, relating to the consolidated financial statements of Pulmonx Corporation, which is contained in that Prospectus. Our report contains an explanatory paragraph regarding the Company’s ability to continue as a going concern.

We also consent to the reference to us under the caption “Experts” in the Prospectus.

/s/ BDO USA, LLP

San Jose, California
September 24, 2020

CONSENT OF DIRECTOR NOMINEE

Pursuant to Rule 438 of Regulation C promulgated under the Securities Act of 1933, as amended (the "Securities Act"), in connection with the Registration Statement on Form S-1 (the "Registration Statement") of Pulmonx Corporation, the undersigned hereby consents to being named and described as a person who will become a director of Pulmonx Corporation in the Registration Statement and any amendment or supplement to any prospectus included in such Registration Statement, any amendment to such Registration Statement or any subsequent Registration Statement filed pursuant to Rule 462(b) under the Securities Act and to the filing or attachment of this consent with such Registration Statement and any amendment or supplement thereto.

IN WITNESS WHEREOF, the undersigned has executed this consent as of the 24th day of September, 2020.

/s/ Thomas W. Burns

Name: Thomas W. Burns

CONSENT OF DIRECTOR NOMINEE

Pursuant to Rule 438 of Regulation C promulgated under the Securities Act of 1933, as amended (the "Securities Act"), in connection with the Registration Statement on Form S-1 (the "Registration Statement") of Pulmonx Corporation, the undersigned hereby consents to being named and described as a person who will become a director of Pulmonx Corporation in the Registration Statement and any amendment or supplement to any prospectus included in such Registration Statement, any amendment to such Registration Statement or any subsequent Registration Statement filed pursuant to Rule 462(b) under the Securities Act and to the filing or attachment of this consent with such Registration Statement and any amendment or supplement thereto.

IN WITNESS WHEREOF, the undersigned has executed this consent as of the 24th day of September, 2020.

/s/ Georgia Garinois-Melenikiotou

Name: Georgia Garinois-Melenikiotou