

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

FORM 10-K

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2023

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 FOR THE TRANSITION PERIOD FROM TO

Commission File Number: 001-38891

TransMedics Group, Inc.

(Exact name of Registrant as specified in its Charter)

Massachusetts
(State or other jurisdiction of
incorporation or organization)

83-2181531
(I.R.S. Employer
Identification No.)

200 Minuteman Road
Andover, Massachusetts
(Address of principal executive offices)

01810
(Zip Code)

Registrant's telephone number, including area code: (978) 552-0900

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, No Par Value	TMDX	The Nasdaq Global Market

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the Registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. YES NO

Indicate by check mark if the Registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. YES NO

Indicate by check mark whether the Registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. YES NO

Indicate by check mark whether the Registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the Registrant was required to submit such files). YES NO

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	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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 13(a) of the Exchange Act.

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements.

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b).

Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). YES NO

The aggregate market value of the registrant's common stock held by non-affiliates of the registrant as of the last business day of the registrant's most recently completed second fiscal quarter, June 30, 2023, based on the last reported sale price of the registrant's common stock of \$83.98 per share was \$2,641 million. As of January 31, 2024, the registrant had 32,715,316 shares of common stock, no par value per share, outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's Definitive Proxy Statement for its 2024 Annual Meeting of Stockholders scheduled to be held on May 23, 2024, which Definitive Proxy will be filed with the Securities and Exchange Commission not later than 120 days after the registrant's fiscal year end of December 31, 2023, are incorporated by reference into Part II and Part III of this Form 10-K.

Table of Contents

	<u>Page</u>
PART I	
Item 1. Business	3
Item 1A. Risk Factors	27
Item 1B. Unresolved Staff Comments	64
Item 1C. Cybersecurity	64
Item 2. Properties	64
Item 3. Legal Proceedings	64
Item 4. Mine Safety Disclosures	64
PART II	
Item 5. Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	65
Item 6. Reserved	66
Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations	67
Item 7A. Quantitative and Qualitative Disclosures About Market Risk	81
Item 8. Financial Statements and Supplementary Data	82
Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure	114
Item 9A. Controls and Procedures	114
Item 9B. Other Information	115
Item 9C. Disclosures Regarding Foreign Jurisdictions that Prevent Inspections	115
PART III	
Item 10. Directors, Executive Officers and Corporate Governance	116
Item 11. Executive Compensation	116
Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	116
Item 13. Certain Relationships and Related Transactions, and Director Independence	116
Item 14. Principal Accounting Fees and Services	116
PART IV	
Item 15. Exhibits, Financial Statement Schedules	117
Item 16. Form 10-K Summary	120
SIGNATURES	121

FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains forward-looking statements, which reflect our current views with respect to, among other things, our operations and financial performance. All statements other than statements of historical facts contained in this Annual Report on Form 10-K, including statements regarding our future results of operations and financial position, business strategy and plans and our objectives for future operations, are forward-looking statements. The words “believe,” “may,” “will,” “estimate,” “continue,” “anticipate,” “intend,” “expect,” “should,” “could,” “target,” “predict,” “seek” and similar expressions are intended to identify forward-looking statements. 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, short- and long-term business operations and objectives, and financial needs. These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including those described in “Item 1A. Risk Factors” in this Annual Report on Form 10-K. Moreover, we operate in a very competitive and rapidly changing environment and new risks emerge from time to time. It is not possible for our management to predict all risks, 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 materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this Annual Report on Form 10-K may not occur and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements.

The forward-looking statements included in this Annual Report on Form 10-K are made only as of the date of this report and should not be relied upon as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance or events and circumstances reflected in the forward-looking statements will be achieved or will occur. Moreover, neither we nor any other person assumes responsibility for the accuracy and completeness of the forward-looking statements. We undertake no obligation to update publicly any forward-looking statements for any reason after the date of this Annual Report on Form 10-K to conform these statements to actual results or to changes in our expectations.

RISK FACTORS SUMMARY

An investment in our common stock involves risks. The following risks, which are discussed more fully in “Item 1A. Risk Factors”, and all of the other information contained in this Annual Report on Form 10-K should be considered carefully before investing in our common stock. These risks include, but are not limited to, the following:

- that we continue to incur losses;
- our ability to attract, train and retain key personnel;
- our existing and any future indebtedness, including our ability to comply with affirmative and negative covenants under our credit agreements to which we will remain subject until maturity;
- the fluctuation of our financial results from quarter to quarter;
- our need to raise additional funding and our ability to obtain it on favorable terms, or at all;
- our ability to use net operating losses and research and development credit carryforwards;
- our dependence on the success of the Organ Care System, or OCS™;
- our ability to expand access to the OCS through our National OCS Program, or NOP;
- our ability to scale our manufacturing and sterilization capabilities to meet increasing demand for our products;
- the rate and degree of market acceptance of the OCS;
- our ability to educate patients, surgeons, transplant centers and private and public payors on the benefits offered by the OCS;
- our ability to improve the OCS platform and develop the next generation of the OCS products;
- our dependence on a limited number of customers for a significant portion of our revenue;
- our ability to maintain regulatory approvals or clearances for our OCS products in the United States, the European Union and other select jurisdictions worldwide;
- our ability to adequately respond to the Food and Drug Administration, or FDA, or other competent authorities, follow-up inquiries in a timely manner;

- the performance of our third-party suppliers and manufacturers;
- our use of third parties to transport donor organs and medical personnel for our NOP and our ability to maintain and grow our logistics capabilities to support our NOP to reduce dependence on third party transportation, including by means of the acquisition of fixed-wing aircraft for our aviation transportation services or other acquisitions, joint ventures or strategic investments;
- our ability to maintain Federal Aviation Administration, or FAA, or other regulatory licenses or approvals for our aircraft transportation services;
- price increases of the components of our products and maintenance, parts and fuel for our aircraft;
- the timing or results of post-approval studies and any clinical trials for the OCS;
- our manufacturing, sales, marketing and clinical support capabilities and strategy;
- attacks against our information technology infrastructure;
- the economic, political and other risks associated with our foreign operations;
- our ability to protect, defend, maintain and enforce our intellectual property rights relating to the OCS and avoid allegations that our products infringe, misappropriate or otherwise violate the intellectual property rights of third parties;
- the pricing of the OCS, as well as the reimbursement coverage for the OCS in the United States and internationally;
- regulatory developments in the United States, European Union and other jurisdictions;
- the extent and success of competing products or procedures that are or may become available;
- our ability to service our 1.50% convertible senior notes, due 2028;
- the impact of any product recalls or improper use of our products; and
- our estimates regarding revenue, expenses and needs for additional financing.

PART I

Except where the context otherwise requires or where otherwise indicated, the terms “TransMedics,” “we,” “us,” “our,” “our company,” “the company,” and “our business” refer to TransMedics Group, Inc. and its consolidated subsidiaries.

Item 1. Business.

Overview

We are a commercial-stage medical technology company transforming organ transplant therapy for end-stage organ failure patients across multiple disease states. We developed the OCS to replace a decades-old standard of care that we believe is significantly limiting access to life-saving transplant therapy for hundreds of thousands of patients worldwide. Our innovative OCS technology replicates many aspects of the organ’s natural living and functioning environment outside of the human body. As such, the OCS represents a paradigm shift that transforms organ preservation for transplantation from a static state to a dynamic environment that enables new capabilities, including organ optimization and assessment. We have also developed our NOP, an innovative turnkey solution to provide outsourced organ retrieval, OCS organ management and logistics services, to provide transplant programs in the United States with a more efficient process to procure donor organs with the OCS. Our logistics services include aviation transportation, ground transportation, and other coordination activity. We believe the use of the OCS combined with the NOP has the potential to significantly increase the number of organ transplants and improve post-transplant outcomes.

We designed the OCS to be a platform that allows us to leverage core technologies across products for multiple organs. To date, we have developed three OCS products, one for each of heart, lung and liver transplantations, making the OCS the only FDA approved, portable, multi-organ, warm perfusion technology platform. All three of our products, OCS Heart, OCS Lung and OCS Liver, have received Pre-Market Approval, or PMA, from the Food and Drug Administration, or FDA, for both organs donated after brain death, or DBD organs, and organs donated after circulatory death, or DCD organs.

Incidence of end-stage organ failure has been rapidly rising worldwide due to demographic trends that contribute to chronic diseases. Organ transplantation is the treatment of choice for addressing end-stage organ failure due to its positive clinical outcomes and favorable health economics. However, transplant volumes have been significantly restricted by the limitations of cold storage, the standard of care for solid organ transplantation. Cold storage is a rudimentary approach to organ preservation in which a donor organ is flushed with cold pharmaceutical solutions, placed in a plastic bag on top of ice and transported in a cooler. Cold storage subjects organs to significant injury due to a lack of oxygenated blood supply, or ischemia, does not allow physicians to assess organ viability and lacks the ability to optimize an organ’s condition once it has been retrieved from the donor. Time-dependent ischemic injury has been shown to result in short- and long-term post-transplant clinical complications and, together with the inability to assess or optimize organs, contributes to the severe underutilization of donor organs. With the use of cold storage, the majority of lungs and hearts donated after brain death go unutilized, and almost no available lungs and hearts donated after circulatory death are utilized.

We developed the OCS to comprehensively address the major limitations of cold storage. The OCS is a portable organ perfusion, optimization and monitoring system that utilizes our proprietary and customized technology to replicate near-physiologic conditions for donor organs outside of the human body. We designed the OCS technology platform to perfuse donor organs with warm, oxygenated, nutrient-enriched blood, while maintaining the organs in a living, functioning state; the lung is breathing, the heart is beating and the liver is producing bile. Because the OCS significantly reduces injurious ischemic time on donor organs as compared to cold storage and enables the optimization and assessment of donor organs, it has demonstrated improved clinical outcomes relative to cold storage and offers the potential to significantly improve donor organ utilization.

We developed the NOP to provide additional capabilities to transplant centers for the complicated organ procurement process that often requires resources and logistics beyond a transplant center’s existing capabilities and capacity, thereby limiting the number of organs the transplant center may be able to retrieve. Our NOP provides trained organ procurement surgeons, clinical specialists and transplant coordinators that provide an end-to-end clinical solution using our OCS technology. In 2023, we enhanced our NOP offering to include logistics services with the addition of a logistics team to expand our transportation logistics capabilities. Our logistics services include aviation transportation, ground transportation, and other coordination activity. Our NOP provides transplant centers with the ability to utilize the OCS to procure and transplant more organs for their patients than they would otherwise be able to do without increasing their own staff.

On August 16, 2023, we acquired Summit Aviation, Inc. and Northside Property Group, LLC, or together Summit. Summit was a charter flight operator based in Bozeman, Montana. The acquisition enabled us to add aircraft transportation services to our NOP and become a comprehensive national provider of donor organ retrieval and delivery in the United States. We have also acquired 13 fixed-wing aircraft to transport donor organs as part of the services offered under our NOP. We intend to acquire additional fixed-wing aircraft as we scale our fleet of aircraft to reduce our dependence on third party transportation providers.

We believe the OCS and the NOP drive significant benefits to all stakeholders in the field of organ transplantation. For patients, we believe the OCS and the NOP provide additional access to life-saving transplants and allow for quicker recovery following transplantation. For hospitals, we believe the OCS and NOP provide a means to increase transplant volume, treat more patients, enhance provider status and improve transplant program economics. Finally, we believe the OCS and NOP provide payors with a more cost-effective treatment for end-stage organ failure and reduces exposure to significant post-transplant complication costs and extended hospital stays.

Our OCS products and NOP services are reimbursed in the United States through existing, standard commercial transplant billing mechanisms. The Medicare program and private payors had been providing reimbursement for the OCS Lung, OCS Heart and OCS Liver during the U.S. pivotal trials and have continued providing reimbursement for our products and services following FDA approval. We are in the process of seeking long-term reimbursement for our products outside of the United States.

Our corporate headquarters, manufacturing and clinical training facilities are located in Andover, Massachusetts. We also have a geographically distributed team in the United States supporting our NOP. We have additional distribution and commercial operations in Europe. As of December 31, 2023, we had 584 employees, most of whom were full-time and located in the United States. We generated \$241.6 million, \$93.5 million and \$30.3 million of total revenue during the years ended December 31, 2023, 2022 and 2021, respectively, representing year-over-year growth of 158.5% and 208.8% in 2023 and 2022, respectively. Our business model is characterized by a high level of recurring revenue, which is derived primarily from sales of our single-use, organ-specific disposable sets that are required for each transplant using the OCS as well as services provided to transplant centers by our NOP.

Our Competitive Strengths

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

- **Only FDA approved, portable, multi-organ, warm perfusion platform**
Our Organ Care System is the only FDA approved portable, multi-organ, warm perfusion device on the market. Portability is a critical aspect in reducing the ischemic injury to the organ before transplantation, thereby reducing post-transplant complications and allowing the utilization of more organs for transplant. The multi-organ platform allows for the standardization of use across transplant programs.
- **National OCS Program**
We developed our NOP to provide transplant programs with a more efficient process to procure donor organs with the OCS. As we expect the number of transplants to increase and the retrieval distance to extend, we believe the field will need alternatives to the current model in which the recipient transplant center sends its team to the donor site for retrieval. Our NOP provides a turnkey solution that leverages the technical advantage of the OCS and provides transplant centers with a more efficient way to increase their volume of transplants without significantly increasing resources.
- **Transportation Logistics of the NOP**
Transporting organs, clinical staff and medical technology in the field of organ transplant is very challenging. Donor organs may become available at almost any hospital at any time. The donor organ must be retrieved and transported to allocated recipients in a timely manner while protecting the organ from ischemic injury. The donor site may not be easily accessible and the distance to travel from donor to recipient may be very long. The expansion of our NOP to provide our own transportation logistics services, including 100% owned and operated private aircraft dedicated to organ retrieval, further improves the efficiency of utilizing the NOP as a complete solution for organ procurement.
- **Significant body of strong clinical evidence**
In order to receive FDA approval for our PMA products, we have conducted a very large number of clinical trials with very large numbers of patient participants, with the results of these trials published in leading medical journals. We also continue to collect clinical data through post-market registries for all of our products and plan to continue to provide the scientific results of these registries to the clinical user community.

- **Strong relationship with the clinical transplant community**
The transplant community is highly concentrated in the leading academic medical centers around the world. We have developed strong clinical relationships with many of these centers through their participation in our clinical trials and their commercial utilization of our products and services. In addition, many transplant surgeons at our clinical trial locations may have moved to new centers, bringing their OCS experience with them and allowing our relationships to grow to these new centers.
- **Expertise in transplant reimbursement and billing**
The OCS has been reimbursed by the Centers for Medicare & Medicaid Services, or CMS, and private insurers during our clinical trials and continues to be reimbursed in the commercial setting. Since our customers have been billing for reimbursement for many years, we have developed a high degree of expertise in the area of transplant reimbursement and appropriate billing of insurers. We provide advice and best practices to our customers in compliance with laws and regulations.
- **Strong research and development capabilities and comprehensive intellectual property portfolio**
We have a long history and broad experience in the development of warm machine perfusion for organ preservation. During the life of our OCS technology platform we have continued to add technological and usability enhancements to our devices. In the future, we intend to develop newer versions of the technology that continue to improve the ease of use, portability, and capability of the products.

Organ Transplant Therapy Benefits and Challenges

We believe organ transplantation is the most effective treatment for end-stage organ failure in terms of both clinical outcomes and health economics. Organ transplant provides the longest life expectancy and best quality of life compared to other therapies for end-stage organ failure. For example, the therapeutic options for end-stage heart failure include optimum medical management with pharmaceutical treatments, or OMM, mechanical support with a left ventricular assist device, or LVAD, and heart transplantation. Heart transplantation is associated with materially longer survival rates as compared to OMM and LVADs, which are either used as a bridge to transplant or as destination therapy, an alternative to transplant. These improved survival rates, in turn, result in favorable economics for transplantation on the basis of quality-adjusted life years.

However, organ transplant therapy faces two major challenges. First, despite the large and growing incidence of organ failure worldwide, and the significant clinical and economic benefits of organ transplantation, the number of transplants severely lags demand due to the limitations of traditional methods of organ preservation prior to transplantation. Second, a high rate of post-transplant clinical complications needs to be reduced to improve outcomes and lower costs.

The use of cold static storage for preservation of donor organs contributes to these challenges in three ways:

- **Subjects the donor organs to severe time-dependent ischemic injury**

Cold storage deprives the organs from oxygen, resulting in time dependent injury (ischemia). This injury correlates with post-transplant complications and restricts the viable time for organ procurement and transplant, which limits the time and distance possible between donor and recipient and results in low utilization of the donor pool and limits the number of transplant procedures performed annually.

- **No organ optimization capability**

Given the non-physiologic environment, cold storage does not allow for any therapeutic interventions to optimize the condition of the donor organs. This further limits utilization of available donor organs for transplantation and could negatively impact post-transplant outcomes. It is well demonstrated that donor organs benefit from some form of optimization to replenish depleted levels of substrates, hormones, and electrolytes that are significantly altered or used up during the donation process.

- **No organ viability assessment capability**

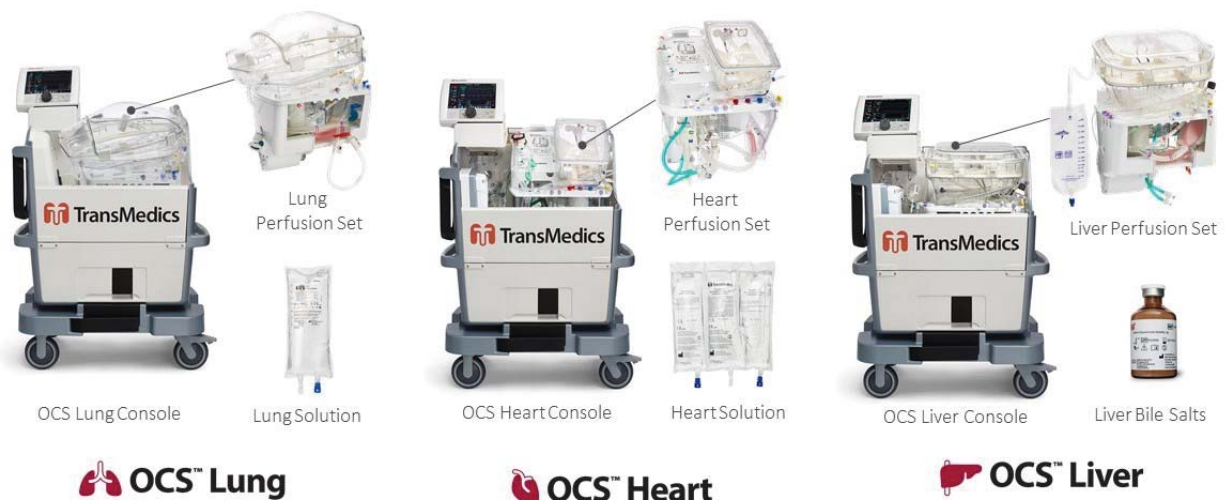
During cold storage, the organs are not physiologically active, nor functioning; thus, there are no means for evaluating the suitability of these organs for transplantation. This further limits utilization of available organs as donor populations worldwide are growing older and have concomitant risk factors that benefit from sophisticated diagnostic evaluation capabilities to predict whether the donor organ is suitable and safe to transplant.

Our Technology and Solution

We developed the OCS to comprehensively address the major limitations of cold storage. The OCS is a portable organ perfusion, optimization and monitoring system that utilizes our proprietary and customized technology to replicate near-physiologic conditions for donor organs outside of the human body. The OCS was designed to perfuse donor organs with warm, oxygenated and nutrient-enriched blood, while maintaining the organs in a living, functioning state; the lung is breathing, the heart is beating and the liver is producing bile. As such, the OCS represents a paradigm shift that transforms organ preservation for transplantation from a static state to a dynamic environment that enables new capabilities, including organ optimization and assessment.

The OCS Technology Platform

We developed the OCS, the first and only FDA approved portable, multi-organ, warm perfusion platform, to leverage proprietary core technologies across multiple organs. For each OCS product, we supplement the platform with organ-specific, customized and proprietary technologies. To date, we have developed three OCS products, one for each of lung, heart and liver transplantation. We have initiated the development of the next generation multi-organ platform to improve the usability, incorporate new technology and automation, and facilitate the use of OCS in our NOP.



Each OCS product consists of three primary components customized for each organ:

- **OCS Console:** The OCS Console is a highly portable electromechanical medical device that houses and controls the function of the OCS and is designed to fit in the current workflow for organ transplantation.
- **OCS Perfusion Set:** The OCS Perfusion Set is a sterile, biocompatible single-use disposable set that stores the organ and circulates blood. The OCS Perfusion Set includes all accessories needed to place the organ on the system.
- **OCS Solutions:** The OCS Solutions are a set of nutrient-enriched solutions used with blood to replenish depleted nutrients and hormones needed to optimize the organ's condition outside of the human body.

The OCS technology platform is equipped with the following core technologies that we designed to comprehensively address the limitations of cold storage and improve transplant outcomes:

- **proprietary pulsatile blood pump** to simulate beating heart perfusion in organs outside of the human body;
- **proprietary software-controlled titanium blood warmer** to maintain blood at body temperature while maximizing portability;
- **gas exchanger** to maintain organ oxygenation outside of the human body;
- **customized hemodynamics sensors** to monitor and assess organ function outside of the human body;

- **proprietary software-controlled, miniaturized, electromechanical system with universal power supply and hot-swappable batteries** to maximize portability and travel distance for organ retrieval;
- **proprietary wireless monitor and control software** to provide an intuitive user interface for monitoring critical organ function; and
- **customized carbon fiber OCS console structure** to reduce the overall weight of the system and maximize portability.

Key Advantages of the OCS Platform

We believe the OCS platform provides significant benefits relative to cold storage:

- **Significant reduction in ischemia**
Decreases current time and distance limitations on organ transport while also increasing the currently limited time period for retrieval during which high quality transplant outcomes can reliably be obtained. This maximizes organ utilization and enables increased access to organ transplantation, while also meaningfully improving post-transplant outcomes.
- **Enables organ optimization outside of the human body**
Allows therapeutic optimization of donor organs from the damaging conditions of brain and circulatory death using clinically proven and safe modalities, thus significantly improving donor organ utilization and patient outcomes.
- **Allows for organ viability assessment**
Enables diagnostic evaluation of the donor organ using currently acceptable clinical standards to evaluate the organ’s suitability for transplantation and to maximize the post-transplant outcomes.

We believe that by comprehensively addressing the three limitations of cold static storage, the use of the OCS will allow for increased utilization of donor organs and improve post-transplant outcomes.

Benefits of the OCS Platform for Key Stakeholders

We believe the OCS platform provides significant benefits to key constituents across the transplant continuum.

Value to Patients

We believe the OCS increases patients’ access to what we believe is the best treatment option for end-stage organ failure, which results in improved quality of life and longer life expectancy. In addition, we believe improved clinical outcomes from use of the OCS will allow patients to recover more quickly following a transplant.

Value to Providers

We believe the OCS allows providers to improve clinical outcomes and increase the number of patients who receive organ transplants. Improvements in clinical outcomes could enable providers to meet the CMS post-transplant survival metrics required for reimbursement coverage and improve the overall financial profile of their transplant programs. In addition, we believe the increase in transplant volumes enabled by the OCS will help providers achieve “Center of Excellence” designations with payors and thus drive significant revenue growth for their transplant programs.

Value to Payors

We believe organ transplantation is a cost-effective treatment for end-stage organ failure as it provides the longest life expectancy, and better quality of life, compared to other treatments like mechanical support or medical therapy. We believe the OCS will enable payors to benefit from these favorable health economics and limit their exposure to the high cost of severe post-transplantation complications and extended hospital stays.

Our Strategy

We are committed to our goal of transforming organ transplantation with our OCS platform by establishing the OCS as the standard of care for solid organ transplantation and thereby increasing the utilization of donor organs and improving clinical outcomes.

The key elements of our strategy are:

- **Grow the adoption of the OCS at existing transplant center customers and expand the number of centers utilizing OCS and NOP.** We are focused on driving adoption of the OCS and NOP at leading, high volume transplant programs as well as expanding utilization to medium and smaller centers that can utilize OCS and NOP to provide transplants to more patients.
- **Grow our NOP, a turnkey solution to provide outsourced organ retrieval, OCS organ management and logistics services, to provide transplant programs with a more efficient process to procure donor organs with the OCS.** Our NOP leverages our clinical, logistical and transportation capabilities to provide access to and use of the OCS for transplant centers throughout the United States. We believe this program has the potential to accelerate adoption of the OCS, maximize utilization of donor organs for transplantation and, by standardizing the quality of use of the OCS, deliver better clinical outcomes.
- **Develop the next generation OCS technology platform to improve user experience and facilitate our NOP.** We have initiated the development of the next generation multi-organ platform to improve the usability, incorporate new technology and automation, and facilitate the use of OCS in our NOP. In addition, in August 2023, we acquired certain assets related to lung and heart perfusion technology from Bridge to Life, and we intend to further develop these technologies to expand our product offerings and indications for organ transplantation.
- **Expand internationally by accessing national reimbursement for OCS in key European countries.** We have begun the development of required comprehensive material for various national healthcare systems throughout Europe. We believe international expansion will be an additional growth driver for us in the long term.

Commercialization

We commercialize our products through two channels: our NOP and a direct acquisition model. Our NOP enables transplant centers to outsource the retrieval, organ management and transportation logistics process to our trained organ procurement surgeons, clinical specialists and transplant and logistics coordinators using our OCS products. Our offering allows the transplant center to focus their internal resources on the transplant surgery and patient care. Utilizing our NOP saves the transplant center from investing in additional resources to support higher volumes and longer distance retrievals. Since the launch of the NOP, our sales of the OCS have primarily been through the NOP.

Our direct acquisition model is provided to transplant centers to train their own teams for retrieval and organ management on the OCS. Customer users are certified on the use of OCS at our training facility. Customers in the direct acquisition channel keep inventory of OCS disposables available and order replenishment as they are used. All of our international customers and a small number of our U.S. customers purchase our OCS products through the direct acquisition model.

Reimbursement

Medicare's reimbursement for organ transplant procedures is well-established and involves two payment mechanisms. The first is the inpatient hospital prospective payment system, which reimburses the transplant hospital for operating costs incurred during the inpatient stay in which the transplant procedure is performed. The payment for this stay is determined by the Medicare Severity-Diagnosis Related Group, or MS-DRG, into which the case is assigned. The second mechanism involves a separate payment, in addition to the MS-DRG-based payment, for organ acquisition costs, which include organ preservation and transportation costs. Medicare reimburses hospitals for allowable organ acquisition costs on a reasonable cost basis. The OCS is reimbursed under this second mechanism.

For Medicaid transplant recipients, reimbursement to a transplant hospital for the incurred cost of the OCS is determined based on the applicable state Medicaid program. Some states establish a global payment for the transplant and organ acquisition costs, and some states have separate payments for the inpatient stay based on the MS-DRG system and for organ acquisition costs. Private insurers typically have agreements as to how they reimburse for the transplant costs and the organ acquisition costs,

which may be through a global payment for both, or a payment for the transplant and a separate mechanism for paying for organ acquisition costs. Nearly half of U.S. lung, heart and liver transplants are covered under the Medicare and Medicaid programs, with the remainder being reimbursed through private payors.

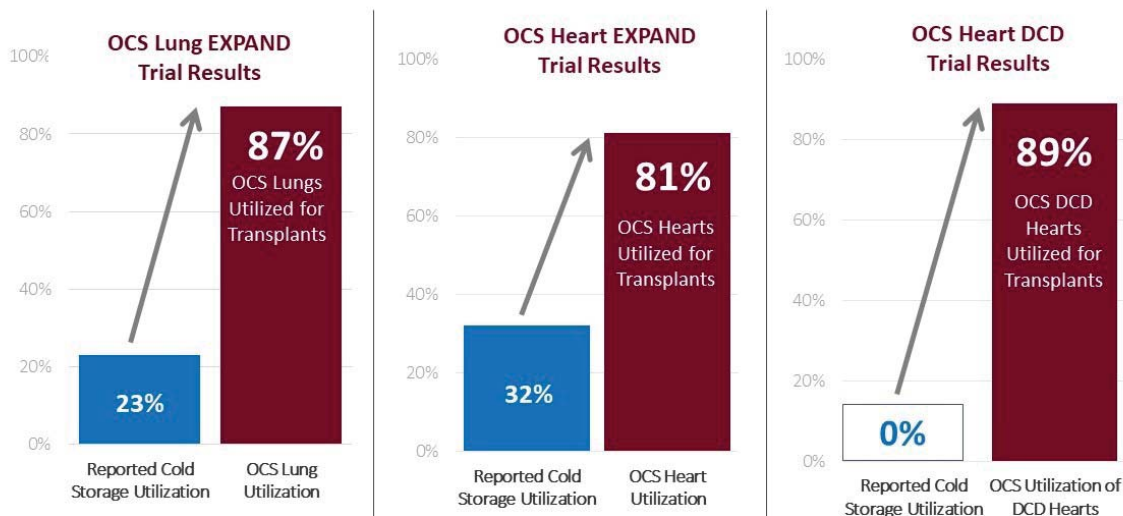
Medicare and private payors provided reimbursement for the OCS Lung, OCS Heart and OCS Liver during the U.S. pivotal trials and have provided reimbursement for the OCS Lung, OCS Heart and OCS Liver following their FDA approvals. This has established multiple years of billing precedent. We believe these established methods will continue to facilitate commercial reimbursement for the OCS Lung, OCS Heart and OCS Liver. Reimbursement outside of the United States follows a similar overall structure; however, reimbursement decisions are required in each individual country and may require national health systems to review and approve OCS reimbursement for each organ-specific product. Currently, national healthcare systems do not reimburse transplant centers for the use of the OCS and reimbursement in international markets may require us to undertake additional clinical studies. However, international hospitals using the OCS currently pay for the OCS from their hospital budget or charitable funds. We are in the process of seeking long-term reimbursement for our OCS products in several jurisdictions.

Clinical Evidence

The lead transplant surgeons at transplant centers are clinically focused and rely primarily on clinical evidence to drive changes in their practice of organ transplantation. We have developed a substantial body of global clinical evidence to support our FDA PMA approvals and PMA submissions for the OCS for lung, heart and liver transplantation. Many of these clinical trials and studies have been published in peer-reviewed clinical journals. Our clinical trials have evaluated the use of the OCS for transplantation of organs that meet the current criteria for organ transplantation, as well as organs that would otherwise go unutilized from DBD and DCD donors. We believe the results of our clinical trials across lung, heart and liver transplantation may support the potential of the OCS in improving clinical outcomes and increasing utilization of available donor organs.

The results of our clinical trials are summarized in the images below.

The OCS Technology Impact on Donor Organ Utilization



OCS Impact on Post-Transplant Clinical Outcomes



OCS Lung Clinical Outcomes

87% Utilization of lungs currently unused from DBD & DCD donors – good outcomes

50% Reduction of severe post-transplant complications



OCS Heart Clinical Outcomes

81% Utilization of DBD hearts currently unused – good outcomes

65% Lower* severe post-transplant complications

95% Patient survival after DCD donor heart transplants



OCS Liver Clinical Outcomes

2X Rate of DCD donor liver utilization

43% Reduction of severe post-transplant complications

84% Reduction in long-term biliary complications

* Nicoara A., et al. Primary graft dysfunction after heart transplantation: Incidence, trends, and associated risk factors; Am J Transplant. 2018;18:1461–1470.

OCS Clinical Trial Overview Table

Trial Name	OCS Lung		OCS Heart			OCS Liver
	INSPIRE	EXPAND Lung	PROCEED II	EXPAND Heart/CAP	DCD Heart/CAP	PROTECT/CAP
Objective	Compare OCS to Cold Storage	Improve Utilization	Compare OCS to Cold Storage	Improve Utilization	Improve Utilization and Compare OCS to Cold Storage	Compare OCS to Cold Storage
Number of Patients	320	79	128	150	270	374
Summary Outcomes	Met primary effectiveness endpoint	Did not meet primary effectiveness endpoint	Met primary effectiveness endpoint	Met primary effectiveness endpoint	Met primary effectiveness endpoint	Met primary effectiveness endpoint
	50% Reduction in post-transplant complications	Significant increase in utilization to 87%	Reduction of injurious ischemic time	Significant increase in utilization to 81%	Significant increase in utilization to 89%	43% reduction in early allograft dysfunction
	Reduction of injurious ischemic time	Good one year survival Reduction in PGD3	Post-hoc observational analysis, graft-related deaths were similar in both groups, overall deaths were higher in OCS Group	Good one year survival 65% Lower incidence of PGD	Good 1 year survival (94%)	74% reduction of ischemic biliary complications at one year Utilization - 98% Good 1 year survival
Length of Follow-up Post-Transplantation	24 months	12 months	30 days	12 months	12 months	24 months
Number of Centers	21 U.S. and international	8 U.S. and international	10 U.S. and international	9 U.S.	25 U.S.	20 U.S.
Publication	Warnecke et al., Lancet Respiratory Medicine, April 2018	Loor et al., Lancet Respiratory Medicine, August 2019	Ardehali et al., The Lancet Journal, April 2015	Schroder et al., JACC: Heart Failure, January 2024	Schroder et al., NEJM, June 2023	Markmann et al., JAMA Surgery, January 2022

Intellectual Property

Patents and Trade Secrets

We rely on a combination of patent, trademark, copyright, trade secret and other intellectual property laws, nondisclosure and assignment of inventions agreements and other measures to protect our intellectual property. Our patent portfolio includes patents and patent applications that we own or license from third parties.

As of December 31, 2023, our owned and licensed patent portfolio consisted of approximately 400 issued patents and pending patent applications worldwide, including in the United States, Australia, Europe, Canada, China, Israel, New Zealand and Japan. Our owned portfolio includes patents and applications related to one or more of the OCS Lung, OCS Heart, OCS Liver and solutions. In the United States, our owned portfolio includes about 45 issued patents and 13 pending applications. Outside the United States, our owned portfolio includes about 288 issued patents and 54 pending applications. Issued patents in our portfolio are expected to expire between 2025 and 2038, excluding any potential additional patent term for patent term adjustments or patent term extensions, if applicable. If granted, the pending U.S. and foreign patent applications in our portfolio are expected to expire between 2025 and 2043, excluding any potential additional patent term for patent term adjustments or patent term extensions, if applicable.

As of December 31, 2023, our patent portfolio relating to the OCS Lung or lung transplantation technology includes families comprised of patents and patent applications with claims that are generally directed to certain methods and systems for preserving a lung ex vivo using both perfusion and ventilation. Such patents are issued in the United States, Australia, Belgium, Canada, China, Denmark, Europe, France, Germany, Ireland, Israel, Italy, Japan, Hong Kong, Netherlands, New Zealand, Spain, Sweden, and United Kingdom, and patent applications are pending in the United States, Australia, Canada, China, Europe, Hong Kong, Israel, Japan and New Zealand. These patents, and any patents issued from pending patent applications, are expected to expire in 2043, excluding any potential additional patent term for patent term adjustments or patent term extensions, if applicable.

As of December 31, 2023, our patent portfolio relating to the OCS Heart or heart transplantation technology includes families comprised of patents and patent applications with claims that are generally directed to certain methods and systems for preserving a heart ex vivo. Such patents are issued in the United States, Australia, Belgium, Canada, China, Denmark, Europe, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, Netherlands, New Zealand, Spain, Sweden, and United Kingdom, and patent applications are pending in the United States, Australia, Canada, China, Europe, Hong Kong, Israel, Japan, and New Zealand. These patents, and any patents issued from pending patent applications, are expected to expire in 2038, excluding any potential additional patent term for patent term adjustments or patent term extensions, if applicable. We have requested patent term extension for one patent relating to the OCS Heart, U.S. Patent No. 7,651,835, which, if granted, would expire in 2032.

As of December 31, 2023, our patent portfolio relating to the OCS Liver or liver transplantation technology includes a family of issued and pending patent applications with claims that are generally directed to certain systems, including perfusion circuits for perfusing a liver ex vivo. Such patents are issued in the United States and Australia, and applications are pending in the United States, Australia, Canada, China, Hong Kong, Israel, Japan and New Zealand. This patent and any patents issued from pending patent applications are expected to expire in 2035, excluding any potential additional patent term for patent term adjustments or patent term extensions, if applicable. We have requested patent term extension for one patent relating to the OCS Liver, U.S. Patent No. 10,076,112, which, if granted, would expire in 2035.

As of December 31, 2023, our patent portfolio relating to the OCS Solutions or other solutions for transplantation systems includes families comprised of patents and patent applications with claims that are generally directed to compositions of certain perfusion fluids. Such patents are issued in the United States, Australia, China, Israel, Japan, New Zealand and patent applications are pending in the United States, Canada, China, Europe, Hong Kong, and New Zealand. These patents, and any patents issued from pending patent applications, are expected to expire in 2035, excluding any potential additional patent term for patent term adjustments or patent term extensions, if applicable.

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 filing date of a non-provisional patent application in the applicable country. We cannot assure that patents will be issued from any of our pending applications or that, if patents are issued, they will be of sufficient scope or strength to provide meaningful protection for our technology. Notwithstanding the scope of the patent protection available to us, a competitor could develop methods or devices that are not covered by our patents. Furthermore, numerous U.S. and foreign issued patents and patent applications owned by third parties exist in the fields in which we are developing products. Because patent applications can take many years to issue, there may be applications unknown to us, which applications may later result in issued patents that our existing or future products or proprietary 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. Adverse determinations in litigation could subject us to significant liabilities to third parties, could require us to seek licenses from third parties and could prevent us from manufacturing, selling or using the OCS, any of which could severely harm our business.

For more information, see “Item 1A. Risk Factors—Risks Related to Our Intellectual Property” in this Annual Report on Form 10-K.

Competition

Competition in organ preservation for transplantation can be classified into two main segments: (1) cold storage and cold perfusion technologies and (2) warm perfusion technologies. In both cold storage and cold perfusion, the organs are not functioning and are metabolically inactive. The characteristics of cold storage and cold perfusion described above significantly limit donor organ utilization and are a primary driver of post-transplant complications. Supply of cold storage and cold perfusion products is fragmented with a number of companies mainly providing undifferentiated flush and perfusion solutions or temperature controlled cold storage devices.

Warm perfusion preservation for solid organ transplant is an emerging alternative designed to address the limitations of cold storage and cold perfusion. In warm perfusion, the organs are functioning and metabolically active. We are aware of only two other companies providing warm perfusion systems, OrganOx Limited and XVIVO Perfusion AB, both of which offer single-organ warm perfusion systems for the liver and lung, respectively.

We believe that our principal competitive factors include:

- strong clinical evidence from large trials demonstrating safety, effectiveness and clinical benefits;
- superior technology;
- our NOP, including clinical service and logistics services;
- regulatory approvals for broad clinical indications of use;
- ease of integration into current organ retrieval workflow, including system portability across all modes of transportation;
- platform capabilities designed to support multiple organ transplant programs;
- brand recognition among leading transplant programs worldwide;
- established clinical relationships and a core of committed clinical users;
- commercial reimbursement; and
- sophisticated clinical training and support program to users worldwide.

Research, Development and Clinical Trial Operations

Our research, development and clinical trial operations function consists of a dedicated clinical trial team that has trial management, data collection and biostatistics expertise. Our product engineering function consists of multi-disciplinary engineering teams that have electrical, mechanical, systems and software engineering expertise. Our regulatory function includes a team with both U.S. and international medical device regulatory expertise and is supported by senior FDA regulatory advisors and outside legal counsel. For the years ended December 31, 2023, 2022 and 2021 our research, development and clinical trials expenses were \$36.1 million, \$26.8 million and \$22.3 million, respectively.

This team is focused on the following research, development and clinical trial activities:

- developing the next generation OCS;
- developing applications to expand the access and use of the data generated from the OCS;
- expanding the body of clinical evidence supporting the use of the OCS platform through pre-market clinical trials, post-market registries and scientific publications;
- improving incrementally the technology and manufacturing efficiency of our current platform; and

- conducting research to investigate new clinical applications and uses for the OCS platform.

Manufacturing and Supply Chain Operations

We design and assemble our OCS Consoles and disposable OCS Perfusion Sets at our facility in Andover, Massachusetts. We have recently increased the size of our manufacturing facility at the Andover site to increase our manufacturing capacity to meet current and future demand. We believe this expanded facility's capacity is sufficient to cover the next several years of forecasted demand. We have added a second shift to our existing cleanroom and we have the ability to add additional shifts to the new, expanded, cleanroom to further increase production capacity. We manufacture our sterilized disposable OCS Perfusion Sets in a class 10,000 cleanroom. We source many of the components for the OCS Console and OCS Perfusion Sets from third-party suppliers that are required to manufacture and test them according to our specifications. We purchase some of the components of the OCS Console and OCS Perfusion Set from single-source suppliers and, in a few cases, sole-source suppliers. We rely on third parties to sterilize our products prior to sale.

We source the OCS Solutions using our proprietary formulas from third-party suppliers. Fresenius is our single-source supplier of OCS Solutions for the OCS Lung and OCS Heart. Our agreement with Fresenius for the supply of OCS Lung Solution was previously through April 2024 and was automatically extended for 24 months through April 2026. Upon expiration the agreement will continue to extend for subsequent periods of 24 months each, unless terminated by either party at least 12 months prior to the end of the initial term or the then-current extension term. We may also terminate this agreement with 12 months' notice if we request that Fresenius qualifies a second manufacturing plant or qualifies a reputable third party to manufacture the OCS Lung Solution and Fresenius fails to respond to this request. Our agreement with Fresenius includes an obligation to meet certain annual minimum purchase commitments based upon rolling order forecasts that we provided to Fresenius in accordance with this agreement. Our agreement with Fresenius for the supply of OCS Heart Solution has one-year evergreen terms, terminable by either party at least 12 months prior to the end of the then-current term.

Our supply chain and operations team includes supply chain procurement and planning, production and test employees, sustaining engineers, manufacturing engineers and field service technicians.

Product Regulation

Our OCS products and our operations are subject to extensive regulation by the FDA and other federal and state authorities in the United States, as well as comparable authorities in the European Union and other countries.

Our products are subject to regulation as medical devices under the Federal Food, Drug and Cosmetic Act, or FDCA, as implemented and enforced by the FDA. The FDA regulates the development, design, non-clinical and clinical research, manufacturing, safety, effectiveness, labeling, packaging, storage, installation, servicing, recordkeeping, premarket clearance or approval, adverse event reporting, advertising, promotion, marketing and distribution, and import and export of medical devices to ensure that medical devices distributed domestically are safe and effective for their intended uses and otherwise meet the requirements of the FDCA.

In addition to U.S. regulations, we are subject to a variety of regulations in the European Union and other countries, governing medical devices, clinical investigations and commercial sales and distribution of our products. Regardless of whether we have or are required to obtain FDA clearance or approval for a product, we will be required to obtain the relevant authorizations/approvals before commencing clinical trials/investigations and to obtain the necessary authorizations, approvals or certifications of our products under the comparable regulatory authorities of countries outside of the United States before we can commence clinical trials/investigations or commercialize our products in those countries. In the European Union, the manufacturer of a device must affix a Conformité Européene mark, or CE Mark, which allows the device to be placed on the market anywhere in the EU and additional Member States of the European Economic Area, or EEA, (i.e., Norway, Lichtenstein and Iceland). The EU CE mark is also recognized in Turkey and, for a transitional period following the UK's withdrawal from the European Union, referred to as Brexit, in the United Kingdom.

The authorization/approval processes for devices outside the European Union will vary from country to country and the time may be longer or shorter than that required for FDA clearance or approval or EU CE marking.

FDA Premarket Clearance and Approval Requirements

Unless an exemption applies, each medical device commercially distributed in the United States requires either FDA clearance of a 510(k) premarket notification, approval of a PMA or issuance of a de novo classification order. 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 and regulatory controls needed to ensure its safety and effectiveness. Class I includes devices with the lowest risk to the patient and/or the user and are those for which safety and effectiveness can be reasonably assured by adherence to the FDA’s general controls for medical devices, which include compliance with the applicable portions of the Quality System Regulation, or QSR, facility registration and product listing, reporting of adverse medical events and device malfunctions, and truthful and non-misleading labeling, advertising, and promotional materials. Class II devices are subject to the FDA’s General Controls and special controls as deemed necessary by the FDA to ensure the safety and effectiveness of the device. These special controls can include performance standards, post-market surveillance, patient registries and FDA guidance documents. While most Class I devices are exempt from the 510(k) premarket notification requirement, manufacturers of most Class II devices are required to submit to the FDA a premarket notification under Section 510(k) of the FDCA requesting a substantial equivalence determination that provides permission to commercially distribute the device. The FDA’s permission to commercially distribute a device subject to a 510(k) premarket notification is generally known as 510(k) clearance. Under the 510(k) process, the manufacturer must submit to the FDA a premarket notification demonstrating that the device is “substantially equivalent” to either a device that was legally marketed prior to May 28, 1976, the date upon which the Medical Device Amendments of 1976 were enacted, or a device that was reclassified from Class III to Class II or I, or another commercially available device that was cleared through the 510(k) process or that was granted marketing authorization through the de novo classification process under section 513(f)(2) of the FDCA, or a 510(k) exempt device. We received 510(k) clearance for the OCS Lung Solution for cold flush, storage and transportation of donor lungs in July 2021, for the OCS Lung Donor Flush Set in November 2022, and for the OCS Heart Leukocyte Reducing Filter in October 2023.

Devices deemed by the FDA to pose the greatest risks, such as life-sustaining, life-supporting and many implantable devices, or devices that have been found not substantially equivalent to a legally marketed Class I or Class II predicate device, are placed in Class III, requiring approval of a PMA.

Each of our OCS warm perfusion products is a Class III device. We have received a PMA for each of the following:

- OCS Lung for the preservation of standard criteria donor lungs for double-lung transplantation;
- OCS Lung for the preservation of donor lungs initially deemed unsuitable due to limitations of cold storage for double-lung transplantation;
- OCS Heart for the preservation of DBD donor hearts deemed unsuitable due to limitations of cold storage (e.g. >4 hours of cross-clamp time);
- OCS Heart for the *ex vivo* reanimation, functional monitoring, and beating-heart preservation of donation-after-circulatory-death (DCD) hearts; and
- OCS Liver for the preservation of DBD and DCD donor livers < 55 years old, macrosteatosis < 15% and with < 30 minutes of warm ischemia time.

PMA Pathway

Class III devices require an approved PMA before they can be marketed. The PMA process is more demanding than the 510(k) premarket notification process. In a PMA, the manufacturer must demonstrate that the device is safe and effective, and the PMA must be supported by extensive data, including data from preclinical studies and human clinical trials. The PMA must also contain a full description of the device and its components, a full description of the methods, facilities and controls used for manufacturing, and proposed labeling. If the FDA accepts the application for review, it has 180 days under the FDCA to complete its review of a PMA, although in practice, the FDA’s review generally takes one year, or even longer, from the time the PMA application is submitted to the FDA until an approval is obtained. An advisory committee of experts from outside the FDA may be convened to review and evaluate the application and provide recommendations to the FDA as to the approvability of the device. The FDA may or may not accept the panel’s recommendation. In addition, the FDA will generally conduct a preapproval inspection of the applicant or its third-party manufacturers’ manufacturing facility or facilities to ensure compliance with the QSR and, in some cases, will audit the applicant and clinical sites as part of its Bioresearch Monitoring program.

During the PMA review, the FDA assesses whether the data and information in the PMA constitute valid scientific evidence to support a determination that there is a reasonable assurance that the device is safe and effective for its intended use(s) based on the proposed labeling. The FDA may approve a PMA with post-approval conditions intended to ensure the safety and effectiveness of the device, including, among other things, restrictions on labeling, promotion, sale and distribution, and collection of long-term follow-up data from patients in the clinical study that supported a PMA or requirements to conduct additional clinical studies post-approval. The FDA may condition a PMA approval on some form of post-market surveillance when deemed necessary to protect the public health or to provide additional safety and effectiveness data for the device in a larger population or for a longer period of use. Failure to comply with the conditions of approval can result in material adverse enforcement action, including withdrawal of the approval. Certain changes to an approved device, such as changes in manufacturing facilities, methods, or quality control procedures, or changes in the design or performance specifications, which affect the safety or effectiveness of the device, require submission and approval of a PMA supplement. PMA supplements often require submission of the same type of information as a PMA, except that the supplement is limited to information needed to support any changes from the device covered by the original PMA and may not require as extensive clinical data or the convening of an advisory committee. Certain other changes to an approved device require the submission and approval of a new PMA, such as when the design change causes a different intended use, mode of operation, and technical basis of operation, or when the design change is so significant that a new generation of the device will be developed, and the data that were submitted with the original PMA are not applicable for the change in demonstrating a reasonable assurance of safety and effectiveness.

Clinical Trials

Clinical trials are almost always required to support a PMA application and may be necessary to support PMA supplements for additional indications or modified versions of a marketed device product. All clinical investigations of investigational devices to determine safety and effectiveness must be conducted in accordance with the FDA's investigational device exemption, or IDE, regulations that govern investigational device labeling, prohibit promotion of the investigational device, and specify an array of study review and approval, informed consent, recordkeeping, reporting and monitoring responsibilities of study sponsors and study investigators. If the device presents a "significant risk" to human health, as defined by the FDA, the FDA requires the device sponsor to submit an IDE application to the FDA, which must become effective prior to commencing human clinical trials. To be approved, an IDE application must be supported by appropriate data, such as animal and laboratory test results, showing that it is safe to test the device in humans and that the testing protocol is scientifically sound. If the FDA determines that there are deficiencies or other concerns with an IDE for which it requires modification, the FDA may permit a clinical trial to proceed under a conditional approval. Acceptance of an IDE application for review does not guarantee that the FDA will allow the IDE to become effective and, if it does become effective, the FDA may or may not determine that the data derived from the trials support the safety and effectiveness of the device to support marketing approval or clearance, or to warrant the continuation of clinical trials. An IDE supplement must be submitted to, and approved by, the FDA before a sponsor or investigator may make a change to the investigational plan that may affect its scientific soundness, study plan or the rights, safety or welfare of human subjects. Non-significant risk device studies do not require submission of an IDE application to FDA.

In the United States, the study must be approved by, and conducted under the oversight of, an Institutional Review Board, or IRB. The IRB is responsible for the initial and continuing review of the study and may pose additional requirements for the conduct of the study.

During a study, the sponsor is required to comply with the applicable FDA requirements, including, for example, trial monitoring, selecting clinical investigators and providing them with the investigational plan, ensuring IRB review, adverse event reporting, record keeping and prohibitions on the promotion of investigational devices or on making safety or effectiveness claims for them. After a trial begins, we, the FDA or the IRB could suspend or terminate a clinical trial at any time for various reasons, including a belief that the risks to study subjects outweigh the anticipated benefits or protocol violations.

Post-market Regulation

After a device is cleared or approved for marketing, numerous and pervasive regulatory requirements continue to apply. These include:

- establishment registration and device listing with the FDA;
- QSR requirements, which require manufacturers, including third-party manufacturers, to follow stringent design, testing, control, documentation and other quality assurance procedures during all aspects of the design and manufacturing process;

- labeling and marketing regulations, which require that promotion is truthful, not misleading, fairly balanced and provide adequate directions for use and that all claims are substantiated, and also prohibit the promotion of products for unapproved or “off-label” uses and impose other restrictions on labeling;
- approval of a PMA supplement for certain modifications to PMA-approved devices that affect the safety or effectiveness of the device, or clearance of a new 510(k) premarket notification for modifications to 510(k) cleared devices that could significantly affect safety or effectiveness or that would constitute a major change in intended use of the device;
- medical device reporting regulations, which require that a manufacturer report to the FDA information that reasonably suggests a device it markets may have caused or contributed to a death or serious injury, or has malfunctioned and the device or a similar device that it markets would be likely to cause or contribute to a death or serious injury, if the malfunction were to recur;
- correction and removal reporting regulations, which require that manufacturers report to the FDA field corrections and product removals if undertaken to reduce a risk to health posed by the device or to remedy a violation of the FDCA that may present a risk to health;
- complying with the federal law and regulations requiring Unique Device Identifiers on devices and also requiring the submission of certain information about each device to the FDA’s Global Unique Device Identification Database;
- the FDA’s recall authority, whereby the agency can order device manufacturers to recall from the market a product that is in violation of governing laws and regulations if the FDA finds that there is a reasonable probability that the device would cause serious, adverse health consequences or death; and
- post-market surveillance activities and regulations, which apply when deemed by the FDA to be necessary to protect the public health or to provide additional safety and effectiveness data for the device.

Our manufacturing processes are required to comply with the applicable portions of the QSR, which cover the methods and the facilities and controls for the design, manufacture, testing, production, processes, controls, quality assurance, labeling, packaging, distribution, installation and servicing of finished devices intended for human use. The QSR also requires, among other things, maintenance of a device master record, device history file, and complaint files. As a manufacturer, our facilities, records and manufacturing processes are subject to periodic scheduled or unscheduled inspections by the FDA. Our failure to maintain compliance with the QSR or other applicable regulatory requirements could result in the shutdown of, or restrictions on, our manufacturing operations and the recall or seizure of our products. The discovery of previously unknown problems with any of our products, including unanticipated adverse events or adverse events of increasing severity or frequency, whether resulting from the use of the device within the scope of its clearance or off-label by a physician in the practice of medicine, could result in restrictions on the device, including the removal of the product from the market or voluntary or mandatory device recalls.

The FDA has broad regulatory compliance and enforcement powers. If the FDA determines that we failed to comply with applicable regulatory requirements, it can take a variety of compliance or enforcement actions, which may result in any of the following sanctions:

- warning letters, untitled letters, fines, injunctions, consent decrees and civil penalties;
- recalls, withdrawals, or administrative detention or seizure of our products;
- operating restrictions or partial suspension or total shutdown of production;
- refusing or delaying requests for approvals of PMAs of new products or modified products;
- withdrawing a PMA approval that has already been granted;
- refusal to grant export permits or certificates for our products; or
- criminal prosecution.

Regulation of Medical Devices in the European Union

In the European Union, our products are regulated as medical devices. Regulation of our medical devices in the European Union is harmonized through Regulation (EU) 2017/745, or the MDR, which repealed and replaced the Medical Devices Directive (93/42/EEC) with effect from May 26, 2021.

However, the competent authorities in each member state enforce the standards set out in the MDR against relevant economic operators (including the manufacturer, importer, authorized representative and distributors) making medical devices available in the member state (although, under the MDR there are provisions for national competent authorities to inform other competent authorities, the European Commission and Notified Bodies, as applicable, of certain non-compliances).

Under the MDR, a medical device placed on the market in the European Union must meet the applicable General Safety and Performance Requirements, or GSPRs, laid down in Annex I of the MDR. Similar to the U.S. system, medical devices are classified into one of four classes based on risk: I, IIa, IIb and III, with class I representing the lowest risk products and class III the highest risk products. One of the most fundamental GSPRs is that a medical device must be designed and manufactured in such a way that it will not compromise the clinical condition or safety of patients, or the safety and health of users and others (provided that any risks posed are acceptable when weighted against the benefits). In addition, the GSPRs include (but are not limited to) that the device must achieve the performances intended by the manufacturer, be designed, manufactured and packaged in a suitable manner and the manufacturer must establish, implement, document and maintain a risk management plan. The European Commission has adopted various standards applicable to medical devices, referred to as harmonized standards. While not mandatory, compliance with these harmonized standards is often viewed as the easiest way to satisfy the GSPRs as a practical matter. Compliance with a harmonized standard developed to implement a GSPR also creates a rebuttable presumption that the device satisfies that essential requirement. Currently the European Commission has only harmonized a relatively limited number of standards (these include, for example, standards of sterilization, biological evaluation, the quality management system, *etc.*) but the Commission will continue to harmonize more standards.

To demonstrate compliance with the GSPRs, medical device manufacturers must undergo a conformity assessment procedure, which varies according to the type of medical device and its classification. Conformity assessment procedures require an assessment of available clinical evidence, literature data for the product and post-market experience in respect of similar products already marketed.

For all devices other than low risk devices (*i.e.*, Class I non-sterile, non-measuring devices), a conformity assessment procedure requires the intervention of a notified body. The notified body must audit and examine a product's technical dossier and the manufacturer's quality system. If satisfied that the relevant product conforms to the relevant GSPRs, the notified body issues a certificate of conformity, which the manufacturer uses as a basis for its own declaration of conformity. The manufacturer may then affix the CE Mark to the device, which allows the device to be placed on the market throughout the European Union (and by extension the European Economic Area). Once the product has been placed on the market in the European Union, the manufacturer must comply with requirements for reporting incidents and field safety corrective actions associated with the medical device. The notified body has ongoing audit rights and must be notified of all significant changes to the device.

Although the MDR now applies so all new devices placed on the market must be CE marked under it, under the transition period granted by the MDR, certificates issued by notified bodies for medical devices under the Medical Devices Directive before May 26, 2021 may remain valid and the devices may continue to be placed on the EU market potentially until the end of December 2027 or 2028 (depending on the class of device) and provided the manufacturer satisfies certain requirements, including that there are no significant changes in the design and intended purpose of these devices.

The requirements of the MDR are significantly more onerous than under the EU Medical Devices Directive. The increased regulation includes the following:

- strengthening of the rules on placing devices on the market, by requiring more evidence substantiating safety and efficacy of the device and more detailed content in the technical documentation for each device;
- requiring a structured post-market clinical follow-up program for every medical device;
- necessitating more thorough post-market surveillance program, with an emphasis on active gathering and analyzing the data;

- establishing explicit provisions on manufacturers' responsibilities for the follow-up of the quality, performance and safety of devices placed on the market and new responsibilities for distributors and importers;
- improving the traceability of medical devices throughout the supply chain to the end-user or patient through a unique identification number;
- setting up a central database into which manufacturers and other economic operators are required to input data with the goal of providing EU competent authorities as well as provide patients, healthcare professionals and the public with comprehensive information on products available in the European Union; and
- strengthening 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.

All of our products that were previously certified under the EU Medical Devices Directive, including OCS Heart, OCS Lung, and OCS Liver systems, which includes the OCS Console, the OCS disposables, and the OCS solution additives, have now been recertified under the MDR. We received the CE Mark for the OCS Liver combined with our solution additives under the MDR in May 2023, with an effective date of April 2023.

Clinical Investigations

Clinical evidence is required for most medium and high risk devices. In some cases, a clinical study may be required to support the CE marking of a device. A manufacturer that wishes to conduct a clinical study involving the device is subject to the clinical investigation requirements of the MDR, EU member state requirements, and current good clinical practices defined in harmonized standards and guidance documents. Clinical investigations for medical devices cannot proceed without a positive opinion of an ethics committee and approval by or notification to the relevant national regulatory authorities. Both regulators and ethics committees also require the submission of serious adverse event reports during a study and may request a copy of the final study report.

Post-marketing Requirements

In the European Union, we are currently required to comply with strict post-marketing obligations that apply after a device is placed on the market. These include the obligation to have in place a post-market surveillance system and vigilance system. These requirements include that the manufacturer must report to the relevant national competent authorities any serious incident involving devices made available on the market and any field safety corrective action in respect of devices made available on the market or undertaken in a third country in relation to a device made available on the market. Additionally, the manufacturer of high risk devices must submit periodic safety update reports to its notified body and manufacturers of lower risk devices must maintain periodic safety update reports as part of the technical documentation for their products.

Authorities in the European Union also closely monitor the marketing programs implemented by device companies. The MDR prohibits making misleading claims, including promoting the product for or suggesting a use that is not part of its intended purpose. However, the obligations that companies must fulfill concerning premarketing approval of promotional material vary among member states of the European Union as beyond that requirement, advertising and promotion law for medical devices is not harmonized in the European Union.

Regulations Applicable to Transport of Organs Intended for Transplantation

In the European Union, Directive 2010/53/EU sets out certain standards which the EU member states should apply in respect of procurement, preservation and transport of organs intended for transplantation. While we are not directly affected by this directive, our EU customers are, and our products may either help or impede their compliance with this Directive.

Regulation of Medical Devices in the United Kingdom

The Medicines and Healthcare products Regulatory Agency, or the MHRA, is responsible for regulating the UK medical devices market. The MHRA performs market surveillance of medical devices on the UK market and is able to take decisions over the marketing and supply of devices in the UK. The MHRA is also responsible for the designation and monitoring of UK approved bodies (the equivalent of EU notified bodies).

Since May 26, 2021, the EU Medical Devices Regulation (Regulation 2017/745), or the EU MDR, has applied in EU Member States and Northern Ireland. Further, the In Vitro Diagnostic Medical Devices Regulation (Regulation 2017/746), or the EU IVDR, has applied in EU Member States and Northern Ireland since May 26, 2022. As these EU regulations took effect after the UK left the European Union, they were not EU law automatically retained by the EU (Withdrawal) Act 2018 and therefore do not and will not apply in Great Britain (England, Wales and Scotland).

In the United Kingdom medical devices are regulated under the Medical Devices Regulations 2002 (SI 2002 No 618, as amended) (UK MDR 2002) which give effect in UK law to the directives listed below (which have now been repealed and replaced in the European Union by the EU MDR and EU IVDR):

- Directive 90/385/EEC on active implantable medical devices (EU AIMDD)
- Directive 93/42/EEC on medical devices (EU MDD)
- Directive 98/79/EC on in vitro diagnostic medical devices (EU IVDD)

This means that the Great Britain route to market is based on the requirements derived from the above EU legislation and is thus different to the route to market for the European Union. However, although neither the EU MDR nor EU IVDR apply in Great Britain, the UK MDR 2002 provide a transitional period that allows manufacturers to place devices CE marked under the EU MDR or EU IVDR (including their relevant transition periods), on the market in Great Britain potentially up until June,30 2030.

Since January 1, 2021 (when the Brexit transition period ended), there have been a number of changes, introduced through secondary legislation, on how medical devices are placed on the market in Great Britain (England, Wales and Scotland). These include:

- a new route to market and product marking (the UKCA marking) is available for manufacturers wishing to place medical devices on the Great Britain market;
- all medical devices, including in vitro diagnostic medical devices, or IVDs, custom-made devices and systems or procedure packs, need to be registered with the MHRA before they are placed on the Great Britain market;
- medical device manufacturers based outside the UK who wish to place a device on the Great Britain market need to appoint a single UK Responsible Person for all devices who will act on their behalf to carry out specified tasks, such as registration;
- the EU no longer recognizes UK Notified Bodies and UK Notified Bodies are not able to issue CE certificates. (Following Brexit, certificates issued by our UK notified body (BSI UK) were no longer recognized for CE marking purposes. BSI Netherlands thus reissued the certificates that allow CE marking of the OCS products); and
- UK Notified Bodies have become UK Approved Bodies. UK Approved Bodies can issue UKCA marking certificates.

We have appointed a UK Responsible Person for our devices in the UK.

Clinical Investigations

In order to demonstrate compliance with the essential requirements of the UK MDR 2002 and the general safety and performance requirements of the EU MDR, and in order to justify the application of UKCA/CE/CE UKNI marking, it will sometimes be necessary for the manufacturer of the device to provide clinical data with which to back up claims made for that device. This may involve the need for a specifically designed clinical investigation to:

- verify that under normal conditions of use the performance characteristics of the device are those intended by the manufacturer; and
- determine any undesirable side-effects and to assess whether these are acceptable risks when weighed against the intended performance of the device.

If such an investigation is necessary, and will be conducted in the UK, the manufacturer must make an application to the MHRA before the investigation is due to begin, and such a clinical investigation may only proceed provided no grounds for objection are raised by the MHRA within the statutory review time constraint. The MHRA will reach a decision aided by a number of expert assessors. It is the responsibility of the manufacturer both to notify the MHRA and to submit the documentation required by the UK MDR 2002 to the MHRA. The clinical investigator will normally have no direct contact with the MHRA. The manufacturer must also obtain ethics committee approval for the investigation.

Post-marketing Requirements

Once a medical device has been placed on the UK market, the manufacturer is required to submit vigilance reports to the MHRA when certain incidents occur in the UK that involve their device. They must also take appropriate safety action when required. The manufacturer must also ensure their device meets appropriate standards of safety and performance for as long as it is in use. The advertising and marketing of medical devices is governed in the UK by both legislation and self-regulatory codes of practice.

The MHRA Enforcement of Medical Device Regulations in the UK

To ensure that medical devices placed on the market and put into service in the UK meet applicable regulatory requirements the MHRA perform the following activities:

- assess all allegations of non-compliance brought to them, using a risk-based system;
- monitor the activity of UK Approved Bodies designated by MHRA to assess the compliance of manufacturers; and
- investigate medical devices as a result of adverse incident reports or intelligence indicating a potential problem.

If MHRA considers that a person or company has committed a serious offense by failing to comply with applicable regulations or the conditions of a notice issued then a person/company may be subject to prosecution.

UK Regulations Applicable to Organs Intended for Transplantation

The standards for the quality and safety of organs for transplantation has been enacted into UK law through The Quality and Safety of Organs Intended for Transplantation Regulations 2012, as amended. This Regulation allows for the establishment of a Competent Authority for the regulation of organ transplantation. In the UK the Competent Authority is the Human Tissue Authority, which has published the “The Quality and Safety of Organs Intended for Transplantation: a documentary framework” which details mandatory requirements as well as guidance on how those requirements may be met. While we are not directly affected by this Regulation and guidelines, our UK customers are, and our products may either help or impede their compliance with this Regulation.

Regulation in Other Countries

We are subject to regulations and product registration requirements in many foreign countries in which we may sell our products, including in the areas of:

- design, development, manufacturing and testing (including with respect to significant changes to the products);
- product standards;
- product safety;
- product safety reporting;
- marketing, sales and distribution;
- packaging and storage requirements;
- labeling requirements;

- content and language of instructions for use;
- clinical trials;
- record keeping procedures;
- advertising and promotion;
- recalls and field corrective actions;
- post-market surveillance, including reporting of deaths or serious injuries and malfunctions that, if they were to recur, could lead to death or serious injury;
- import and export restrictions;
- tariff regulations, duties and tax requirements;
- registration for reimbursement, agreement of prices with government; and
- necessity of testing performed in country by distributors for licensees.

The time required to obtain clearance by foreign countries may be longer or shorter than that for FDA clearance, and requirements for licensing a product in a foreign country may differ significantly from FDA requirements. We received a Class II Medical Device License from Health Canada for our OCS Liver combined with our solution additives in October 2023 to complement our existing Health Canada licenses for OCS Heart and OCS Lung.

Adverse events and potential adverse events are monitored closely by regulatory authorities. For example, if, as a result of manufacturing error, the efficacy of our products does not meet the standards claimed in the accompanying instructions for use, regulatory authorities could prevent our products from being placed on the market.

Internationally, the approaches to product defects will vary. A product may be recalled in one country but not in others.

Federal, State and Foreign Fraud and Abuse and Physician Payment Transparency Laws

In addition to FDA restrictions on marketing and promotion of drugs and devices, other federal, state, international laws, as well as laws with extra-territorial effect and market practices restrict our business practices. These laws include, without limitation, U.S. and foreign laws intended to prohibit or otherwise regulate activities that might result in fraud, abuse and bribery.

U.S. Laws

U.S. federal healthcare fraud and abuse laws generally apply to our activities because our products are covered under federal healthcare programs such as Medicare and Medicaid. The principal U.S. federal healthcare fraud and abuse laws applicable to us and our activities include: (1) the Anti-Kickback Statute, which prohibits the knowing and willful offer, solicitation, payment or receipt of anything of value in order to generate business reimbursable by a federal healthcare program; (2) the False Claims Act, which prohibits the submission of false or otherwise improper claims for payment to a federally-funded healthcare program, including claims resulting from a violation of the Anti-Kickback Statute; and (3) healthcare fraud statutes that prohibit false statements and improper claims to any third-party payor. There are also similar state anti-kickback and false claims laws that apply to activities involving state-funded Medicaid and other healthcare programs as well as to private third-party payers.

The Anti-Kickback Statute is particularly relevant because of its broad applicability. Specifically, the 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, arranging for or recommending a good or service for which payment may be made in whole or part under federal healthcare programs, such as the Medicare and Medicaid programs. Almost any financial interaction with a healthcare provider, patient or customer will implicate the Anti-Kickback Statute. Statutory exceptions and regulatory safe harbors protect certain interactions if specific requirements are met. Only those interactions that represent fair market value exchanges, however, are generally protected by an exception or safe harbor. The government can exercise enforcement discretion in taking action against unprotected activities. Many interactions in which we commonly engage, such as the provision of business courtesies to healthcare practitioners, could implicate the Anti-Kickback Statute and may not be protected by an exception or safe harbor. If the government determines that these activities are abusive, we could be subject to enforcement action. Penalties for Anti-Kickback Statute violations may include both criminal penalties such as imprisonment and civil sanctions such as fines and possible exclusion from Medicare, Medicaid, and other federal healthcare programs. Exclusion would mean that our products were no longer eligible for reimbursement under federal healthcare programs.

Laws and regulations have also been enacted by the federal government and various states to regulate the sales and marketing practices of medical device and pharmaceutical manufacturers. The laws and regulations generally limit financial interactions between manufacturers and healthcare providers; require pharmaceutical and medical device companies to comply with voluntary compliance standards issued by industry associations and the relevant compliance guidance promulgated by the U.S. federal government; and/or require disclosure to the government and/or public of financial interactions, so-called “sunshine laws”.

The healthcare laws and regulations applicable to us, including those described above, contain ambiguous requirements and are subject to evolving interpretations and enforcement discretion. Manufacturers must adopt reasonable interpretations of requirements if there is ambiguity and those interpretations could be challenged. If a governmental authority were to conclude that we are not in compliance with applicable laws and regulations, we and our officers and employees could be subject to severe criminal and civil financial penalties, including, for example, exclusion from participation as a supplier of product to beneficiaries covered by Medicare or Medicaid. Any failure to comply with laws and regulations relating to reimbursement and healthcare goods and services could adversely affect our reputation, business, financial condition and cash flows.

International Laws

Many foreign countries have similar laws relating to healthcare fraud and abuse. Foreign laws and regulations may vary greatly from country to country. For example, the advertising and promotion of our products is subject to EU Directives concerning misleading and comparative advertising and unfair commercial practices, as well as other EU member state legislation governing the advertising and promotion of medical devices. Sometimes the relevant rules are found in industry guidance rather than legislation—for example, relationships with healthcare professionals in the UK are governed by the code of Association of British HealthTech Industries, or ABHI, and rules may limit or restrict the advertising and promotion of our products to the general public and impose limitations on our promotional activities with healthcare professionals.

In the European Union the consequences for failing to comply with advertising and promotional laws might lead to reputational damage, fines, exclusions from public tenders and actions for damages from competitors for unfair competition.

Laws with Extra-territorial Effect

Many countries in which we operate have laws with extra-territorial effect—those laws apply to our operations outside the relevant country, to the extent they are breached. Examples of such laws include the Foreign Corrupt Practices Act, or the FCPA, the UK Bribery Act 2010 and the General Data Protection Regulation, or the GDPR.

The extra-territorial effect of those laws affects our sales and marketing strategy, since in many countries healthcare professionals are officers of the state. This is particularly important in the context of bribery offenses, which in the UK and in the United States include the offense of bribing a foreign public official.

Data Privacy and Security Laws

We are, and in the future may become, subject to various U.S. federal and state as well as foreign laws that protect the confidentiality of certain patient health information, including patient medical records, and restrict the use and disclosure of patient health information by healthcare providers.

The Health Insurance Portability and Accountability Act of 1996, or HIPAA, governs the conduct of certain electronic healthcare transactions and requires certain entities, called covered entities, to handle and protect, among other things, the privacy and security of protected health information, or PHI, in certain ways. HIPAA also requires business associates to enter into business associate agreements with covered entities and to safeguard a covered entity's PHI against improper use and disclosure.

HIPAA privacy regulations cover the use and disclosure of PHI by covered entities as well as business associates, which are defined to include subcontractors that create, receive, maintain, or transmit PHI on behalf of a business associate. These regulations also set forth certain rights that an individual may have with respect to his or her PHI maintained by a covered entity, including the right to access or amend certain records containing PHI, or to request restrictions on the use or disclosure of PHI. HIPAA security regulations set forth requirements for safeguarding the confidentiality, integrity, and availability of protected health information that is electronically transmitted or electronically stored. The Health Information Technology for Economic and Clinical Health Act, among other things, provides certain health information security breach notification requirements. Under these laws, the covered entity must notify any individual whose PHI is breached as required under the breach notification rule. Although we believe that we currently are neither a "covered entity" nor a "business associate" directly under HIPAA, a business associate relationship may be imputed from facts and circumstances even in the absence of an actual business associate agreement. In addition, HIPAA may affect our interactions with customers who are covered entities or their business associates.

The HIPAA privacy and security regulations establish a uniform federal "floor" and do not supersede state laws that are more stringent or provide individuals with greater rights with respect to the privacy or security of, and access to, their health and other personal information. States are increasingly regulating the privacy and security of individually identifiable information, including financial information and health information. For example, the California Consumer Privacy Act, or CCPA, gives California residents certain rights, including the right to ask covered companies to disclose the types of personal information collected and delete a consumer's personal information, and imposes several obligations on covered companies to provide notice to California consumers regarding their data processing activities and limitations on covered companies' ability to sell personal information. These protections have been expanded by California Privacy Rights Act of 2020, or CPRA, along with new privacy laws in Virginia, Colorado and several other states. We expect additional federal and state legislative and regulatory efforts to regulate consumer privacy in the future. Some states have also passed further protections focused on data protection for health information, including the Washington My Health My Data Act.

In the EEA, as well as in the United Kingdom, or the UK, -post-Brexit, we may be subject to laws relating to our collection, control, processing and other use of personal data, such as data relating to an identified or identifiable living individual. Following Brexit, the UK has substantively retained the same privacy rules as it had when a member of the European Union. We process personal data in relation to our operations. We process data of both our employees and our customers, including health and medical information. The data privacy regime in the EEA includes the GDPR, regarding the processing of personal data and the free movement of such data, which became applicable on May 25, 2018, the E-Privacy Directive 2002/58/EC and national laws implementing or supplementing each of them. Each EU member state has transposed the requirements laid down by the E-Privacy Directive into its own national data privacy regime and therefore the laws may differ by jurisdiction, sometimes significantly. The GDPR was retained post-Brexit in the UK as the UK GDPR. In addition, many EEA member states have passed legislation addressing areas where the GDPR permits member states to derogate from the regulation's requirements, thus leading to divergent requirements between member states in spite of the GDPR's stated goal of creating a uniform privacy law for the entire EEA. The UK has done the same. We need to ensure compliance with the rules in each jurisdiction where we are established. Even if not established in the EEA (or the UK), we may otherwise be subject to local privacy laws in those regions. For example, we may be subject to the GDPR (or UK GDPR) even when processing personal data in connection with offering goods or services to persons located in the EEA (or UK) or monitoring the behavior of persons located in the EEA (or UK).

GDPR requirements include that personal data may only be collected for specified, explicit and legitimate purposes based on a certain legal bases set forth in GDPR, and may only be processed in a manner consistent with those purposes. Processing of personal data also needs to be adequate, relevant, not excessive in relation to the purposes for which it is collected and secure. Personal data must not be kept for longer than necessary for the purposes of collection. To the extent that we process, control or otherwise use sensitive data relating to living individuals (for example, patients' health or medical information, or genetic data or biometric data used for identification purposes, and other types of "special category data" listed in GDPR), more stringent rules may apply, limiting the circumstances and the manner in which we are legally permitted to process that data and transfer that data outside of the EEA (UK). In particular, in order to process such data, explicit consent to the processing (including any cross-border transfer) may be required from the data subject (being the person to whom the personal data relates), though in certain cases, and depending on the jurisdiction in which the data originate or are processed, such data may be processed absent explicit consent for purposes of medical diagnosis, public interest in the area of public health (including the safety and efficacy of medical devices) or scientific research. The same rules apply to us in the UK under the UK GDPR.

The GDPR and UK GDPR also impose potentially onerous accountability obligations requiring data controllers and processors to maintain a record of their data processing and privacy policies/notices. They require data controllers to be transparent and disclose to data subjects in privacy notices (in a concise, intelligible and easily accessible form but at the same time at a sufficiently granular level) how their personal information is to be used, impose limitations on retention of information, encourage the use of pseudonymization techniques (i.e., key-coded) data, introduces mandatory data breach notification requirements and sets higher standards for data controllers to demonstrate that they have obtained valid consent for certain data processing activities. Fines for non-compliance with the GDPR and the UK GDPR may be significant. The GDPR provides that EEA member states may introduce further conditions, including limitations, to the processing of genetic, biometric or health data (and other special category data), which could limit our ability to collect, use and share personal data, or could cause our compliance costs to increase, ultimately having an adverse impact on our business.

EU GDPR (or UK GDPR) protected data must not be transferred outside of the EEA or UK, respectively, to a non-adequate country (i.e. a country that has not been recognized by the European Commission (in respect of the EU GDPR protected data) or the Secretary of State (in respect of the UK GDPR protected data) as providing an adequate level of protection for the transferred data), unless certain steps are taken to ensure an adequate level of protection. In practice, these extra steps would normally mean (i) entering into EU Standard Contractual Clauses (or, in case of the UK personal data, the UK Addendum to EU Standard Contractual Clauses or, alternatively, the IDTA i.e. the ICO's International Data Transfer Agreement) or putting in place another data transfer mechanism, (ii) carrying out a transfer impact assessment and where necessary to protect the data, implementing supplementary measures. There are exemptions to these data transfer restrictions but these are interpreted narrowly.

The July 2020 invalidation by the Court of Justice of the European Union of the EU-U.S. Privacy Shield framework, one of the mechanisms used to legitimize the transfer of personal data from the EEA (and, post-Brexit, the UK to the U.S., has led to increased scrutiny on data transfers from the EEA (and UK) to the U.S. generally and may increase our costs of compliance with data privacy legislation due to the requirement to enter into EU Standard Contractual Clauses (or, in case of the UK personal data, the UK Addendum to EU Standard Contractual Clauses or the IDTA) and further extra steps set out above. In December 2022, the European Commission published its draft adequacy decision on the EU-US transfers of personal data - the new Data Privacy Framework, or EU-US DPF. Under the EU-US DPF, it will be possible to transfer EEA personal data freely to the US recipient that has self-certified under the EU-US DPF regime, although this may be challenged in the European Union Court of Justice by EU based privacy advocates.

We are subject to the supervision of local data protection authorities in those jurisdictions where we are established or otherwise subject to applicable law.

We depend on third parties in relation to provision of our services, a number of which process personal data on our behalf. With such providers we are legally required to enter into contractual arrangements which contain the minimum terms set out in the GDPR (and the UK GDPR), including to ensure that they process personal data only according to our instructions, and that they have adequate technical and organizational security measures in place. Where personal data is being transferred outside the EEA (or the UK), it must be done in compliance with applicable data export requirements. Any failure by us or third parties to comply with applicable data laws, could lead to a security or privacy breach, regulatory enforcement, or regulatory, reputational or financial harm.

U.S. Healthcare Reform

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. Additional healthcare reform efforts have sought to address certain issues related to the COVID-19 pandemic. 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.

We expect additional state and federal healthcare reform measures to be adopted in the future, any of which could limit the amounts that federal and state governments will pay for healthcare products and services, which could result in reduced demand for our products or additional pricing pressure. We cannot, however, predict the ultimate content, timing or effect of any healthcare reform legislation or action, or its impact on us, and healthcare reform could increase compliance costs and may adversely affect our future business, operations and financial results.

Human Capital Management

Our human capital strategy is comprehensive and leverages our work practices and collaborative culture. As of December 31, 2023, we employed 584 people globally, most of whom were full-time employees.

Our Culture

We strive to foster an inclusive, engaging, and safe work environment where employees want to grow their careers. We promote understanding of our mission, vision, and values and create strong relationships with our employees through various engagement and career development initiatives. For example, we hold quarterly Town Hall meetings with all employees to provide them with an open forum to ask questions, voice any concerns, and provide input on our corporate goals and vision for the future.

Diversity, Equity, and Inclusion: The keystone of our diversity strategy is mutual respect and fostering a sense of belonging – we want everyone to feel welcome and comfortable in our organization and feel that they are supported in growing their career. Our workforce consists of individuals from countries all over the world, representing many different faiths, languages, backgrounds, and cultures. We believe that our diversity is one of our greatest strengths. We are committed to creating and maintaining an inclusive workplace in which all employees have an opportunity contribute to the success of the business. This commitment is embedded in our company policies and human capital management practices.

We have adopted policies to promote compliance with laws and regulations as well as to foster a respectful workplace for all employees. These policies include a code of business conduct and ethics, an insider trading policy, a Regulation FD policy, a sexual harassment policy, a regulated fraternization policy, and a whistleblower policy. Along with an overview of the company, our culture and expectations, training on these policies is a key component of our employee onboarding process.

Health and Safety: We are committed to maintaining compliance with laws and regulations surrounding the health and safety of our employees and strive to follow best practices in our operations. We require relevant employees to complete workplace safety training before performing any job duties that entail potential health hazards, such as trainings for employees who handle hazardous chemicals and biohazardous materials.

Talent Attraction, Retention, and Development

We continually seek exceptionally talented and dedicated people to join our team to help shape both our future and the future of transplant medicine. In recent years, the focus of our recruitment efforts has been centered on finding talent for the NOP and our engineering, manufacturing, and supply chain operations. Since the launch of our aircraft operations in 2023, we are also seeking additional resources in the field of logistics and aviation, including logistics coordinators, pilots and aviation mechanics. We aim to hire people with the right skill sets, growth mindset, and work ethic to drive business results and help us achieve our goals. We provide relocation benefits to eligible employees whom we request to move in connection with their employment with the objective of attracting and deploying top talent.

Compensation and Benefits: We offer competitive compensation and benefits in an exciting, demanding, and fast-paced work environment. We provide employee benefits to eligible employees to promote personal health and well-being and to provide certain financial security and protection upon retirement or in the event of death, disability or illness. These benefits to eligible employees include a 401(k) retirement plan with an employer matching contribution, health insurance (including medical, dental, and vision), life insurance, short- and long-term disability insurance, and paid time off policies. We offer an employee stock purchase plan to facilitate broad-based stock ownership by our employees.

Career Development: We are proud to have a work environment that promotes continued development for our employees. Each employee is provided formal written feedback, at least annually, and together with his/her manager, develops individual goals that are derived from our overall corporate and financial goals. Moreover, we collaborate with our employees to provide customized career development plans as well as general and targeted training curricula based on their roles.

Corporate Information and Organizational Transactions

TransMedics Group, Inc., was incorporated in the Commonwealth of Massachusetts in October 2018 to facilitate our initial public offering, or IPO. TransMedics, Inc., an operating company and wholly-owned subsidiary of TransMedics Group, Inc., was incorporated in the State of Delaware in August 1998. Our principal executive offices are located at 200 Minuteman Road, Andover, Massachusetts 01810, and our telephone number at that address is (978) 552-0900.

Available Information

Our Internet address is www.transmedics.com. Our website and the information contained on, or that can be accessed through, the website will not be deemed to be incorporated by reference in, and are not considered part of, this Annual Report on Form 10-K. Our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, including exhibits, proxy and information statements and amendments to those reports filed or furnished pursuant to Sections 13(a), 14, and 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, are available through the “Investors” portion of our website free of charge as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. In addition, our filings with the SEC may be accessed through the SEC’s Electronic Data Gathering, Analysis and Retrieval system at <http://www.sec.gov>. All statements made in any of our securities filings, including all forward-looking statements or information, are made as of the date of the document in which the statement is included, and we do not assume or undertake any obligation to update any of those statements or documents unless we are required to do so by law.

Item 1A. Risk Factors.

An investment in our common stock involves risks. The following risks and all of the other information contained in this Annual Report on Form 10-K should be considered carefully before investing in our common stock. The risks described below are those that we believe are the material risks that we face. If any of the following risks actually occurs, our business, prospects, operating results and financial condition could suffer materially, the trading price of our common stock could decline and investors could lose all or part of their investment. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently believe to be immaterial may also adversely affect our business. See “Forward-Looking Statements” in this Annual Report on Form 10-K.

Risks Related to Our Financial Position and Need for Additional Capital

We have incurred substantial losses since our inception and have never generated net income on an annual basis.

Since our inception, we have incurred significant operating losses. Our ability to generate revenue sufficient to achieve sustained profitability will depend on the continued growth in customer utilization of our OCS products and services. We generated revenue of \$241.6 million, \$93.5 million and \$30.3 million for the years ended December 31, 2023, 2022 and 2021, respectively, and incurred net losses of \$25.0 million, \$36.2 million and \$44.2 million for these same years. As of December 31, 2023, we had an accumulated deficit of \$503.7 million. To date, we have funded our operations primarily with proceeds from sales of equity, borrowings under loan agreements, issuance of our 1.50% convertible senior notes due 2028, or our Notes, and revenue from clinical trials and commercial sales of our OCS products and services. Our losses have resulted principally from costs incurred in connection with our research and development, clinical trials, manufacturing and commercialization activities, including the development of our NOP.

We expect our operating and capital expenditures will continue to increase for the foreseeable future as we focus on growing commercial sales of our products in both the U.S. and select non-U.S. markets, including growing our NOP and expanding our NOP offerings to include transportation logistics services, including the acquisition of additional aircraft to support aviation transportation; growing our commercial team, which will pursue increasing commercial sales of our OCS products; scaling our manufacturing operations; continuing research and development for our next generation OCS products; and seeking regulatory clearance for new products and product enhancements, including new indications, in both the U.S. and select non-U.S. markets. The timing and amount of our operating and capital expenditures will depend on many factors, including:

- the amount of product revenue generated by sales of our OCS Consoles, OCS Perfusion Sets and OCS Solutions and other products that may be approved in the United States and select non-U.S. markets, revenue generated by our services, and growth of the NOP;
- the costs and expenses of expanding our U.S. and non-U.S. commercial infrastructure and our manufacturing operations;
- the extent to which our OCS products are adopted by the transplant community;
- the ability of our customers to obtain adequate reimbursement from third-party payors for procedures performed using the OCS products;
- the costs incurred in our efforts to operate and grow our NOP, including the costs and timing of growing our logistics capabilities, inclusive of acquiring additional aircraft for our aviation transportation services;
- the costs and timing of research and development of the next generation of OCS products;
- the degree of success we experience in commercializing our OCS products for additional indications;
- the costs, timing and outcomes of any future clinical studies and regulatory reviews, including to seek and obtain approvals for the next generation of OCS products or for new indications for our OCS products;
- the emergence of competing or complementary technologies;
- the number and types of future products we develop and commercialize;

- the costs of preparing, filing and prosecuting patent applications and maintaining, enforcing and defending intellectual property-related claims; and
- the level of our selling, general and administrative expenses.

Because of the numerous risks and uncertainties associated with product development and commercialization, we are unable to accurately predict the timing or amount of increased expenses or when, or if, we will be able to achieve or maintain profitability.

Our existing and any future indebtedness could adversely affect our ability to operate our business.

As of December 31, 2023, our outstanding principal balance of long-term debt under our credit agreement with Canadian Imperial Bank of Commerce, or CIBC, was \$60.0 million, which we refer to as the CIBC Credit Agreement. Our payment obligations under the CIBC Credit Agreement reduce cash available to fund working capital, capital expenditures, research and development and general corporate needs. In addition, indebtedness under the CIBC Credit Agreement bears interest at a variable rate, making us vulnerable to increases in market interest rates. If market rates increase substantially, we will have to pay additional interest on this indebtedness, which would further reduce cash available for our other business needs. We may not have sufficient funds, and may be unable to arrange for additional financing, to pay the amounts due under or refinance our indebtedness under the CIBC Credit Agreement, which is repayable in equal monthly installments starting in July 2026 until its maturity in July 2027.

Our obligations under the CIBC Credit Agreement are secured by substantially all of our assets and the assets of our wholly-owned material subsidiaries, subject to certain exceptions. The security interest granted over our assets could limit our ability to obtain additional debt financing. In addition, the CIBC Credit Agreement contains covenants requiring certain financial performance metrics that restrict our activities, including (x) a requirement to maintain a minimum liquidity amount of the greater of either (i) the consolidated adjusted EBITDA loss (or gain) for the trailing four month period (only if EBITDA is negative) and (ii) \$10.0 million, and (y) a requirement to maintain total net revenue of at least 75% of the level set forth in the total revenue plan presented to CIBC. Failure to comply with the covenants in the CIBC Credit Agreement, including the financial covenants, could result in the acceleration of our obligations under the CIBC Credit Agreement, which are also subject to acceleration upon the occurrence of specified events of default, including payment default, change in control, bankruptcy, insolvency, certain defaults under other material debt, certain events with respect to regulatory approvals and a material adverse change in our business, operations or other financial condition. If an event of default (other than certain events of bankruptcy or insolvency) occurs and is continuing, CIBC may declare all or any portion of the outstanding principal amount of the borrowings plus accrued and unpaid interest to be due and payable. Upon the occurrence of certain events of bankruptcy or insolvency, all of the outstanding principal amount of the borrowings plus accrued and unpaid interest will automatically become due and payable. If such acceleration were to occur, it would materially and adversely affect our business, financial condition, operating results, cash flows and prospects.

Our outstanding indebtedness, combined with our other financial obligations, could increase our vulnerability to adverse changes in general economic, industry and market conditions, limit our flexibility in planning for, or reacting to, changes in our business and the industry and impose a competitive disadvantage compared to our competitors that have less debt or better debt servicing options. See “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources—Long-term Debt” in this Annual Report on Form 10-K.

Servicing our 1.50% convertible senior notes due 2028 requires a significant amount of cash, and we may not have sufficient cash flow to pay our debt.

In May 2023, we issued \$460.0 million aggregate principal amount of the Notes, pursuant to that certain indenture dated as of May 11, 2023, between us as issuer, and U.S. Bank Trust Company, National Association, as trustee. Our ability to make scheduled payments of the principal of, to pay interest on, or to refinance our indebtedness, including the Notes, depends on our future performance, which is subject to many factors, including, economic, financial, competitive and other, beyond our control. If our business does not generate cash flow from operations sufficient to service our debt and make necessary capital expenditures, we may be required to adopt one or more alternatives, such as selling assets, restructuring debt or obtaining additional equity capital on terms that may be onerous or highly dilutive. Our ability to refinance the Notes, which mature in 2028, will depend on the capital markets and our financial condition at such times. We may not be able to engage in any of these activities or engage in these activities on desirable terms, which could result in a default on our debt obligations, and limit our flexibility in planning for and reacting to changes in our business.

We may not have the ability to raise the funds necessary to repurchase the Notes as required upon a fundamental change, and our future debt may contain limitations on our ability to repurchase the Notes.

Holders of the Notes will have the right to require us to repurchase their Notes for cash upon the occurrence of a fundamental change at a fundamental change repurchase price equal to 100% of the principal amount of the Notes to be repurchased, plus accrued and unpaid interest, if any. A fundamental change may also constitute an event of default or prepayment under, and result in the acceleration of the maturity of, our then-existing indebtedness. We cannot guarantee that we will have sufficient financial resources, or will be able to arrange financing, to pay the fundamental change repurchase price in cash with respect to any Notes surrendered by holders for repurchase upon a fundamental change. In addition, restrictions under our then existing credit facilities or other indebtedness, if any, may not allow us to repurchase the Notes upon a fundamental change. Our failure to repurchase the Notes upon a fundamental change when required would result in an event of default with respect to the Notes which could, in turn, constitute a default under the terms of our other indebtedness, if any. If the repayment of the related indebtedness were to be accelerated after any applicable notice or grace periods, we may not have sufficient funds to repay the indebtedness and repurchase the Notes.

Capped call transactions entered into in connection with the Notes may impact the value of our common stock.

In connection with the Notes, we entered into capped call transactions with certain financial institutions. The capped call transactions are expected to generally reduce the potential dilution upon conversion of the Notes into shares of our common stock.

In connection with establishing their initial hedges of the capped call transactions, these financial institutions or their respective affiliates may have entered into various derivative transactions with respect to our common stock and/or purchased our common stock. The financial institutions, or their respective affiliates, may modify their hedge positions by entering into or unwinding various derivatives with respect to our common stock and/or purchasing or selling our common stock or other securities of ours in secondary market transactions prior to the maturity of the Notes. This activity may have an impact on the value of our common stock.

Our financial results may fluctuate from quarter to quarter, which makes our results difficult to predict and may cause our results to fall short of expectations.

Our financial results may fluctuate from quarter to quarter due to a number of factors, including the availability of donor organs for transplantation, which is unpredictable and could impact the volume of transplant procedures performed at transplant centers using the OCS and demand for our NOP. Our revenue from sales may fluctuate significantly from quarter to quarter, and our future quarterly and annual expenses as a percentage of our revenue may be significantly different from those we have recorded in the past. In addition, the timing of acquiring additional aircraft for our aviation transportation services is uncertain and the amount we incur for such acquisitions is likely to differ from quarter to quarter. Our financial results in some quarters may fall below expectations. Comparing our financial results on a period-to-period basis may not be meaningful, and past results may not be an indication of our future performance. Because the timing of organ transplant procedures is generally unpredictable, we have not experienced seasonality in our business from quarter to quarter.

Our ability to use our net operating losses and research and development credit carryforwards to offset future taxable income may be subject to limitations.

As of December 31, 2023, we had federal net operating loss, or NOL, carryforwards of \$376.4 million, which may be available to offset future taxable income, of which \$207.4 million of the total net operating loss carryforwards expire at various dates beginning in 2024, while the remaining \$169.0 million do not expire but are limited in their usage to an annual deduction equal to 80% of annual taxable income. As of December 31, 2023, we had state net operating loss carryforwards of \$328.8 million, which may be available to offset future taxable income and expire at various dates beginning in 2030. As of December 31, 2023, we also had U.S. federal and state research and development tax credit carryforwards of \$10.7 million and \$6.5 million, respectively, which may be available to offset future tax liabilities. Our U.S. federal research and development tax credit carry forwards expire beginning in 2024. A material portion of these NOL and tax credit carryforwards could expire unused and be unavailable to offset future income tax liabilities. In addition, in general, under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, or the 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 NOLs, its research and development credit carryforwards and its disallowed interest expense carryovers to offset future taxable income. Our existing NOLs and research and development credit carryforwards may be subject to limitations arising from previous ownership changes. In addition, 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. Our NOLs and credits may also be impaired under state law. For these reasons, if we determine that an ownership change has occurred or 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 incurred prior to 2019.

Furthermore, our ability to utilize our NOLs or credits is conditioned upon our attaining profitability and generating U.S. federal and state taxable income. As described above, we have incurred significant net losses since our inception and anticipate that we will continue to incur significant losses for the foreseeable future; and therefore, we do not know whether or when we will generate the U.S. federal or state taxable income necessary to utilize our NOL or credit carryforwards. Under the Tax Cuts and Jobs Act, or TCJA, NOLs arising in taxable years beginning after December 31, 2017 will not be subject to expiration. In addition, the deduction for NOLs in any taxable year is limited to 80% of annual taxable income in respect of NOLs generated during or after 2018. The TCJA also reduced the corporate income tax rate to 21%, from a prior rate of 35%. This may cause a reduction in the potential economic benefit of our NOLs and other available deferred tax assets.

We may need to raise additional funding, which might not be available on favorable terms or at all. Raising additional capital may cause dilution to our shareholders.

Until such time, if ever, that we can generate substantial revenue sufficient to achieve sustained profitability, we may need to finance our operations through a combination of equity offerings, debt financings and strategic alliances. We also may elect to raise additional funds because we believe market conditions are attractive or as a risk mitigation measure. Additional capital might not be available when we need it, and our actual cash requirements might be greater than anticipated. If we require additional capital at a time when investment in our industry or in the marketplace in general is limited, we might not be able to raise funding on favorable terms, if at all. If we are not able to obtain financing on terms favorable to us, we may need to significantly delay, scale back or discontinue our development or commercialization activities, sell or license to third parties some or all of our assets or merge with another entity or may be forced to reduce or terminate our operations.

If we raise additional funds through the issuance of equity or convertible securities, the issuance of these securities could dilute shareholders' percentage ownership in our company. Furthermore, newly issued securities may have rights, preferences or privileges senior to those of common shareholders. If we raise additional funds through additional debt financing, we may need to dedicate a substantial additional portion of any operating cash flows to the payment of principal and interest on such indebtedness. The terms of any debt financing also could impose significant restrictions on our operations.

Risks Related to Product Commercialization and Development

Our long-term growth depends on our ability to expand access to the OCS through our NOP.

We have developed the NOP, an innovative turnkey solution to provide outsourced organ retrieval and OCS organ management, to provide transplant programs with a more efficient process to procure donor organs with the OCS. We believe the NOP will continue to expand access and use of the OCS. However, we may not be successful in the continued development of our NOP, which will depend on recruiting, training and retaining qualified surgeons and pilots and establishing and maintaining effective coordination with transplant centers and regional Organ Procurement Organizations to locate donor organs and recipients. We may not be able to recruit, train and retain surgeons, pilots and other qualified personnel, including due to demand for their capabilities and competitive compensation offered by other employers. In order to recruit, train and retain such highly qualified employees, we also may need to increase the level, or change the form or composition, of the compensation that we pay to them, which would increase our expenses.

In addition to our own surgical and clinical personnel, we utilize a network with a limited number of partners for organ retrieval, organ preservation and transportation services offered through our NOP. If any of these relationships are interrupted or terminated, or if one or more partners are unable or unwilling to fulfill their obligations for any reason, NOP services to our customers may be interrupted. We also may not be able to identify or negotiate with additional partners on terms that are commercially reasonable to us. The interruption or failure to retain or replace partners for our NOP would negatively impact our operations and financial results. Furthermore, the expenses incurred by us to customers who participate in our NOP are dependent on many different market dynamics, including the cost of fuel and other transportation costs. Additional expenses incurred by our NOP could adversely affect our business, gross margin, financial condition, operating results, cash flows and prospects.

We will need to increase our manufacturing and sterilization capacity in the future and may encounter problems at our manufacturing facility or otherwise.

In order to manufacture the OCS in quantities sufficient to meet our anticipated commercial opportunity, we will need to continue to increase our manufacturing capabilities and retain third parties to sterilize our products. We may encounter technical challenges to increasing the scale at which we manufacture the OCS, including with respect to material procurement and quality control and assurance. An increase in production could make it more difficult for us to comply with quality system regulations or other applicable requirements that are currently enforced by the FDA and other regulatory authorities, or that may be introduced in the future, in both the United States and in other countries. Commercial scale production of the OCS on a continuing basis also will require us to continue to hire and retain additional management and technical personnel who have the necessary manufacturing experience and skills. We might not successfully identify, hire or retain qualified personnel on a timely basis or at all. To maintain quality of our OCS, we may not be able to scale production of our OCS products at a rate that meets customer demand for our products. Our inability to increase the scale of our manufacturing of the OCS could impair our ability to generate revenue and adversely affect market acceptance of our product.

In addition, all of our manufacturing operations are conducted at a single facility in Andover, Massachusetts. Any interruption in operations at this location could result in our inability to satisfy product demand. Despite our efforts to safeguard this facility, including acquiring insurance on commercially reasonable terms, adopting environmental health and safety protocols and utilizing off-site storage of computer data, a number of factors could damage or destroy our manufacturing equipment or our inventory of component supplies or finished goods, cause substantial delays in our operations, result in the loss of key information, and cause us to incur additional expenses, including:

- operating restrictions, partial suspension or total shutdown of production imposed by regulatory authorities;
- equipment malfunctions or failures;
- technology malfunctions;
- work stoppages;
- damage to or destruction of the facility due to natural disasters or other events; or
- regional or local power shortages.

Our insurance may not cover our losses in any particular case, or insurance may not be available on commercially reasonable terms to cover certain of these catastrophic events. In addition, regardless of the level of insurance coverage, damage to our facilities or any disruption that impedes our ability to manufacture the OCS in a timely manner could materially and adversely affect our business, financial condition, operating results, cash flows and prospects.

We rely on third-party vendors to sterilize our disposable sets prior to sale. If vendors are unable to sterilize our products, whether due to capacity, availability of materials for sterilization, regulatory or other constraints, including federal and state regulations on the use of ethylene oxide used in the sterilization process, we will not be able to sell products until we can retain an alternative vendor to sterilize the products. We may be unable to transition to alternative methods of sterilization in a timely or cost-effective manner or at all, which could harm our business and results of operations.

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

We seek to maintain sufficient levels of inventory, including our OCS Perfusion Sets, in order to protect ourselves from supply interruptions and to support the demand from customers, but keep limited components, sub-assemblies, materials and finished products on hand. To ensure adequate inventory supply and manage our operations with our suppliers, we forecast anticipated materials requirements and demand for our products in order to predict inventory needs and then place orders with our suppliers based on these predictions. Our ability to accurately forecast demand for our products could be negatively affected by many factors, including the rate of transplantations, product recalls, failure to accurately manage our commercial strategy, product introductions by competitors, an increase or decrease in customer demand for our products, our failure to accurately forecast customer acceptance of new products, changes to hospital capacity, staffing, procedure and protocol changes, unanticipated changes in general market conditions or regulatory matters and weakening of economic conditions or consumer confidence in future economic conditions. We also maintain inventory reserves at regional locations for distribution through our NOP. If we are not able to maintain sufficient inventory at these locations, or if we are not able to accurately predict the regional demand for our OCS products, we will incur additional costs to transport inventory to our regional locations, including rebalancing inventory amongst regional locations, and we may not be able to grow our commercial sales as anticipated.

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

We aim to maintain strategic reserves of our OCS Perfusion Sets, but if we are not able to manufacture and assemble OCS Perfusion Sets at a rate that will allow us to maintain these reserves, then we will be required to rely on alternative strategies to deliver OCS Perfusion Sets in a timely manner, which may impact our expenses and results of operations.

We depend heavily on the success of the OCS and it gaining additional market acceptance. If we are unable to continue to successfully commercialize the OCS, our business may fail.

We have invested substantial efforts and financial resources in the development of the OCS, educating surgeons, transplant centers, Organ Procurement Organizations and private and public payors of the benefits of the OCS, providing services related to the OCS and launching our NOP. Although we have received PMAs from the FDA for each of our three OCS products, we might not be able to continue to successfully commercialize the OCS for these approved indications or obtain approvals for additional indications or in additional jurisdictions on our planned timing or at all. Our ability to generate product revenue and become profitable depends primarily on sales of OCS Perfusion Sets and OCS Solutions, which we refer to collectively as disposable sets. Our assumptions regarding demographic trends, donor organ availability and the use of transplantation as a treatment for end-stage organ failure may prove to be incorrect.

We expect that we will need to continue to demonstrate to surgeons, transplant center program directors, Organ Procurement Organizations and private and public payors that the OCS potentially results in some or all of the following: improvements in post-transplant clinical outcomes, increases in the utilization of donor organs, expansion of the pool of potential donors and reduction in the total cost of care as compared to available alternatives.

Surgeons, transplant centers and private and public payors often are slow to adopt new products, technologies and treatment practices that require additional upfront costs and training. The cost of the OCS significantly exceeds the cost of cold storage preservation. In addition, our international customers and some U.S. customers use a direct acquisition model pursuant to which transplant centers train their own teams for retrieval and organ management using the OCS rather than utilizing our NOP. Surgeons may not be willing to undergo training to use the OCS, may decide the OCS is too complex to adopt without appropriate training and may choose not to use the OCS, which may limit the adoption of the OCS under the direct acquisition model. Based on these and other factors, transplant center program directors, Organ Procurement Organizations and private and public payors may decide that the benefits of the OCS do not outweigh its costs. In addition, adoption of the OCS may be constrained by the capacity of individual transplant centers to perform transplants due to factors such as the number of its surgeons trained on the use of the OCS. As a result, demand for the OCS could be materially lower than we expect it to be, which would materially and adversely affect our business, financial condition, operating results, cash flows and prospects.

We must continue to educate surgeons, transplant centers and private and public payors and demonstrate the merits of the OCS compared with cold storage or new competing technologies.

Directors of transplant programs are key decision-makers in the adoption of novel medical devices used in organ transplantation. An important part of our commercialization efforts is to educate transplant center program directors and other surgeons on the relative merits of the OCS. Our success depends, in large part, on effectively marketing and educating program directors and other surgeons about the benefits of the OCS and our NOP. Acceptance of the OCS also depends on educating program directors, other surgeons and private and public payors as to the distinctive characteristics, perceived medical and economic benefits, safety, ease of use and cost-effectiveness of the OCS and our NOP. If program directors, other surgeons and private and public 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 products and NOP Services. Currently, most universal national healthcare systems outside of the United States do not reimburse transplant centers for the use of the OCS and reimbursement in international markets may require us to undertake additional clinical studies.

In addition, the long-term effects of our OCS following transplantation are not yet known. Certain surgeons, transplant centers and private and public payors may prefer to see longer-term safety and efficacy data than we have produced. 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. In addition, as the NOP expands access to the OCS, transplant surgeons may increasingly rely on clinical data regarding the organ provided to them by our clinical specialists and surgeons. We are responsible for the clinical data regarding the organ that is provided to transplant surgeons who participate in the NOP.

Our long-term growth depends on our ability to improve the OCS platform, including by developing the next generation of our products or expanding into new indications.

Our business plan contemplates that we will continue to improve the OCS platform, including by developing the next generation of our products or expanding into additional organs. Developing such new or modified products is expensive and time-consuming and diverts management's attention away from current operations. The success of any new product offering or product enhancements to our OCS platform will depend on several factors, including our ability to:

- properly identify and anticipate surgeon and patient needs;
- develop and introduce new products and product modifications in a timely manner;
- avoid infringing upon, misappropriating or otherwise violating the intellectual property rights of third parties;
- demonstrate the safety and efficacy of new products and product modifications;
- obtain necessary regulatory clearances or approvals;
- comply with regulations regarding the marketing of new products or product modifications;

- provide adequate training to potential users of our products;
- receive adequate coverage and reimbursement for procedures performed with our products; and
- develop an effective commercialization effort.

If we are not successful in expanding our indications and developing the next generation of our products, our ability to increase our revenue may be impaired, which could materially and adversely affect our business, financial condition, operating results, cash flows and prospects.

We may not fully realize the anticipated benefits of our completed or future acquisitions, joint ventures, and strategic investments, such transactions may expose us to additional risks.

On August 2, 2023, we acquired certain assets related to lung and heart perfusion technology from Bridge to Life Ltd. and its subsidiary Tevosol, Inc., or together Bridge to Life. In addition, on August 16, 2023, we acquired Summit, an aviation business. We have separately acquired 13 fixed-wing aircraft, and intend to acquire additional fixed-wing aircraft, that will be operated as part of our NOP. Utilization of these acquired assets and integration of Summit, may be complex, costly and time consuming and we may face unanticipated issues, expenses and liabilities. We may not successfully or profitably utilize newly acquired assets or integrate, operate, maintain and manage any newly acquired operations or employees. Further development of the assets we acquired from Bridge to Life, or the Bridge to Life Assets, will require extensive clinical development, management of nonclinical, clinical and manufacturing activities. In addition, we may decide that only certain of the acquired technology is useful for the next generation of the OCS, or that integration of the acquired technology is not feasible or is too costly. We also may face challenges integrating Summit into our organization. We have never provided aviation transportation services prior to the acquisition and will depend on the management team of Summit for the successful operation and integration into our NOP services offering. Even if we are able to utilize the Bridge to Life Assets and integrate Summit or any other acquired assets or businesses successfully, we may not realize the expected benefits of the transactions. These are the Company's first acquisitions, and we may need to invest in additional business processes and systems to support the Summit integration or to utilize the Bridge to Life Assets. Such additional costs may offset the financial benefits that may be realized from the acquisitions. We also may suffer the loss of key employees and strategic partners of Summit and it may be difficult to implement our corporate culture. There also may be increased risk due to integrating financial reporting and internal control systems of Summit. We may review additional acquisition, joint ventures and strategic investment opportunities to expand our current product offerings, increase the size and geographic scope of our operations or otherwise offer growth and operating efficiency opportunities. There can be no assurance that we will be able to identify suitable candidates or consummate future transactions on favorable terms. If required, the financing for future transactions could result in an increase in our indebtedness, dilute the interests of our shareholders or both. The purchase price for some acquisitions or joint ventures interests may include additional amounts to be paid in cash in the future, a portion of which may be contingent on the achievement of certain future operating results of the acquired business. If the performance of any such acquired business or joint venture exceeds such operating results, then we may incur additional charges and be required to pay additional amounts. Our failure to successfully utilize any acquired assets, complete the integration of any acquired business, including retention of key employees, customers and strategic partners, achieve the long-term plan for such assets or businesses, as well as any other adverse consequences associated with our acquisition and investment activities, could have an adverse effect on our business. Any acquisition may also disrupt our ongoing business, divert resources, increase our expenses, and distract our management from our ongoing operations.

We depend on a limited number of customers for a significant portion of our revenue and the loss of, or a significant shortfall in demand from, these customers could have a material adverse effect on our financial condition and operating results.

We generate a significant amount of our revenue from a limited number of customers. However, our customers may not continue to utilize our products or services at current levels, pricing, or at all, and our revenue could fluctuate significantly due to changes in economic conditions, the use of other methods for organ preservation, such as cold storage, or the loss of, reduction of business with, or less favorable terms with any of our largest customers. Our future success will depend upon the timing and volume of business from our largest customers and the financial and operational success of these customers. If we were to lose a key customer or have a key customer significantly reduce their volume of business with us, our revenue may be materially reduced, which would materially and adversely affect our business, financial condition, operating results, cash flows and prospects.

Substantially all of our U.S. customers now participate in our NOP and our success will depend on our ability to maintain the function and efficiency, while increasing capacity and capability, of the NOP. If we are unable to deliver OCS products to customers through their participation in the NOP, our revenue would be materially reduced, which would materially and adversely effect our business, financial condition, operating results, cash flows and prospects.

We depend on single-source suppliers and, in a few cases, sole-source suppliers for many of the components used in the OCS.

We rely on single-source suppliers and, in a few cases, sole-source suppliers for many of the components used in the OCS. For example, each of Fresenius Kabi Austria GmbH and Fresenius Kabi AB, which we refer to collectively as Fresenius, is our single-source supplier of OCS Solutions for the OCS Lung and the OCS Heart, respectively. While we have manufacturing and supply agreements with certain of our suppliers, for most of our suppliers, we place purchase orders on an as-needed basis. Our suppliers could discontinue the manufacturing or supply of these components at any time. We do not carry a significant inventory of some of these components. Our suppliers may not 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 manufacturers may decide in the future to discontinue or reduce the level of business they conduct with us. In addition, if these suppliers are unable to deliver components to us, whether due to a labor shortage, slow down or stoppage, or for any other reason, we would be required to seek alternative suppliers. We might not be able to identify and qualify additional or replacement suppliers for any of these components quickly or at all or without incurring significant additional costs. We cannot guarantee that we will be able to establish alternative relationships on similar terms, without delay or at all.

We also may choose to establish our own manufacturing process of certain components and we may not be successful in doing so. For example, we will need to seek FDA approval for any component design we choose to manufacture, which may not be granted in a reasonable time, or at all. In addition, the components we design may not be successful or may not provide a functional or economic benefit compared to similar components manufactured by third parties. If we choose to establish our own manufacturing process of components of the OCS, we may be required to procure additional raw materials for such processes, which may not be available. We may also face regulatory delays or be required to seek additional regulatory clearances or approvals if we experience any delay or deficiency in the quality of products obtained from suppliers or if we have to replace our suppliers. In addition, many of the components used in the OCS are specifically designed for use in the OCS, which means that off-the-shelf components may not be available as substitutes.

Establishing additional or replacement suppliers for any of these materials or components, if required, or any supply interruption from our suppliers, could limit our ability to manufacture our products, result in production delays and increased costs and adversely affect our ability to deliver products to our customers on a timely basis. Our inability to obtain sufficient quantities of components for the OCS also could adversely affect development of the next generation of the OCS. If we are not able to identify alternate sources of supply for the components, we might have to modify our product to use substitute components, which could lead to additional regulatory obligations that could impact our marketing ability, cause delays in shipments, increase design and manufacturing costs and increase prices for our products. Any such modified product might not be as effective as the predecessor product or might not gain market acceptance. This could lead to customer dissatisfaction and damage to our reputation and could materially and adversely affect our business, financial condition, operating results, cash flows and prospects.

In addition to our aviation transportation services, we also depend on third parties to transport donor organs and medical personnel for our NOP, and limited availability of, or increases in the cost of, transportation could limit our ability to grow or operate the NOP.

In addition to our aviation transportation services, our NOP depends on the use of a third-party network of private aircraft to transport medical personnel to retrieve donor organs and deliver donor organs to patients for transplantation. Reliance on private aircraft is subject to various risks, including those associated with change in fuel prices, work stoppages and weather-related operating hazards. In particular, private aircraft are occasionally in high demand and/or subject to price fluctuations based on market conditions. Further, availability is constrained by a limited number of private aircraft available in the United States and a limited number of qualified pilots. As a result, third-party private aircraft providers may not be able to prioritize our use of their services.

If we are unable to obtain flight services for our NOP when needed, we may be unable to utilize our NOP to satisfy demand. We also may be required to seek alternative and, potentially more costly, flight services. Although the cost of flights is paid by our customers, a substantial increase in the cost of flight services, due to prolonged increases in fuel prices, lack of availability of aircraft or otherwise, may require us to incur additional costs to identify and obtain alternative flights or rebalance our inventory by shipping products to locations for which flight costs are less expensive or from which flights are more readily available, and customers may be unwilling or unable to incur higher costs of flights and therefore forgo use of our services and products for the retrieval of donor organs despite availability. Further, the capacity of our NOP is limited by the number of aircraft and pilots available for our use and as we continue to grow our NOP, we will be required to obtain access to a greater number of available aircraft and pilots.

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

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

Price increases of the components used to manufacture our products and supply shortages could adversely affect our business and operating results.

The supply of raw materials to our component parts suppliers could be interrupted for a variety of reasons, including availability and pricing. We may experience supply chain disruptions due to general impacts of inflation and labor shortages and these disruptions to the supply chain could adversely affect our ability to meet commitments to customers. Significant price increases could adversely affect our results of operations and operating margins. In particular, inflation, changes in trade policies, the imposition of duties and tariffs and public health crises (such as the COVID-19 pandemic) could adversely impact the price or availability of raw materials and the components of our products. We may not be able to pass along increased component part prices to customers in the form of price increases or our ability to do so could be delayed. Consequently, our results of operations and financial condition may be adversely affected.

Our failure to compete effectively will harm our business and operating results.

A broad range of medical device, pharmaceutical and biotechnology companies offer products, procedures and therapies that have the potential to limit the demand for organ transplantation. Companies within this group vary depending on the type of organ. New therapies for COPD, which includes emphysema and chronic bronchitis, could limit the demand for lung transplants. Alternative products, procedures and therapies including ventricular assist devices, cardiac rhythm management products, total artificial hearts, and drug therapies for the heart and surgical procedures could limit demand for heart transplants. Improved treatments for chronic diseases or conditions affecting the liver as well as efforts to develop artificial livers could limit the need for liver transplants. If demand for organ transplants decreases, sales of the OCS and its components will suffer.

Other companies may develop technologies and products that result in improved patient outcomes or are safer, easier to use, less expensive or more readily accepted than the OCS. These products or technologies could make the OCS obsolete or noncompetitive and reduce demand for our OCS products. Many of these providers of alternative products, procedures and therapies have greater name recognition, significantly greater financial resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory approvals and clearances and marketing and selling products than we do. Smaller and other early stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. Third parties may also compete with us in recruiting and retaining qualified medical, engineering and management personnel, establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to or necessary for our products or development programs or otherwise advantageous to our business. Our failure to compete effectively will harm our business and operating results.

The clinical trial process that may be required to obtain future regulatory approvals is lengthy and expensive, with uncertain outcomes.

Clinical trials are necessary to support PMA applications and may be necessary to support future PMA supplements for modified versions of our marketed device products. Conducting clinical trials is a complex and expensive process, can take many years and outcomes are inherently uncertain. For the development of the next generation of OCS products or the development of OCS products for additional organs, we may incur substantial expense for, and devote significant time to, clinical trials but cannot be certain that the product tested will ever generate revenue sufficient to cover the costs of trials. 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.

Successful results in early studies do not assure positive results in subsequent clinical trials. The data we collect from our preclinical studies and clinical trials may not be sufficient to support FDA or other regulatory clearance or approval. Additionally, the FDA may disagree with our interpretation of the data from our studies and trials. The FDA may conclude that the clinical trial design, conduct or results are inadequate to prove safety or effectiveness, and the FDA may require us to undertake expensive and lengthy additional trials, which may delay clearance or approval of products.

Clinical trials often require enrollment of large numbers of subjects, who may be difficult to identify, recruit and maintain as participants in the clinical trial. As a condition to our PMA approvals, we are required to conduct post-market studies. For example, we have post-approval registries ongoing for all three of our organ products, including the OCS Lung Thoracic Organ Perfusion Registry, or TOP Registry, the OCS Heart Perfusion Registry, or OHP, and the OCS Liver Perfusion Registry, or OLP.

Adverse outcomes in post-approval studies can result in withdrawal of approval of a PMA or restrictions on the approval. We will need to conduct additional clinical studies to support use of the OCS in, and development of OCS products for, new organs, and potentially for commercialization of our products in additional foreign jurisdictions. Clinical trials in organ transplant are difficult to design and implement, take substantial time to conduct and are expensive. The results of clinical trials are inherently uncertain. The initiation and completion of any studies may be prevented, delayed or halted for numerous reasons. The following could adversely affect the costs, timing or successful completion of any clinical trial:

- we have been required and, prior to collecting clinical data in the future to support new PMA applications, may be required again 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 and/or 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 clinical trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different 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 or sterilizing our products, 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 and/or regulatory authorities for re-examination;
- regulators, IRBs or other reviewing bodies 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;
- we may be unable to recruit a sufficient number of clinical trial sites;
- regulators or other reviewing bodies may fail to accept as satisfactory, fail to approve, or subsequently find fault with our manufacturing processes or facilities of third-party manufacturers 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 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.

Failure can occur at any stage of clinical testing. For example, our clinical studies may produce negative or inconclusive results, and, in the future, we may decide, or regulators may require us, to conduct clinical and non-clinical testing in addition to those we have planned. After submission of our PMA applications for OCS Lung and OCS Heart, the FDA requested certain additional clinical analyses, technical information and clarifications as part of the agency's normal review process. The FDA ultimately approved both PMAs. The FDA could ask us to conduct additional clinical trials or submit additional evidence to support PMA applications in the future. Our failure to adequately demonstrate the safety and effectiveness of any product we may develop in the future would prevent receipt of regulatory clearance or approval and, ultimately, the commercialization of that product or indication for use. Even if our future products are cleared or approved in the United States, commercialization of our products in foreign countries would require marketing authorization from regulatory authorities in those countries. Authorization 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 materially and adversely affect our business, financial condition, operating results, cash flows and prospects.

Risks Related to Our Logistics Operations

Prior to our acquisitions to facilitate our aircraft operations, we had no experience operating aircraft ourselves, and we may not be able to achieve the anticipated benefits of our acquisitions or further expansion of our aircraft operations.

Prior to our acquisitions to facilitate our aircraft operations, we had no experience operating aircraft ourselves, and we depend on the management team of Summit and additional employees we may hire for the successful operation of aviation transportation services and the integration into our NOP services offering. The management teams must work together to comply with applicable laws and regulations and to manage our growing NOP logistics network. The operation of aircraft is a highly regulated activity and one that involves unique risks, including those described above, which we have not needed to manage previously. We may not successfully manage these risks or profitably utilize, integrate, operate, maintain and manage our newly acquired aircraft, employees and other aircraft operations.

If we fail to retain the existing management of Summit, or if we fail to successfully manage our aircraft operations or growing logistics network, our ability to realize the anticipated benefits of the acquisition of Summit or expansion of our NOP may be adversely affected.

The operation of aircraft is subject to various risks, and failure to maintain an acceptable safety record may have an adverse impact on our ability to obtain and retain customers.

The operation of aircraft is subject to various risks, including catastrophic disasters, crashes, mechanical failures and collisions, which may result in loss of life, personal injury and/or damage to property, plant and equipment. We may experience accidents in the future. These risks could endanger the safety of our personnel, third-parties, equipment, viability of donor organs and other property (both ours and that of third-parties), as well as the environment. If any of these events were to occur, we could experience loss of revenue, termination of customer contracts, higher insurance rates, litigation, regulatory investigations and enforcement actions (including potential grounding of our fleet and suspension or revocation of our operating authorities) and damage to our reputation and customer relationships. In addition, to the extent an accident occurs with an aircraft we operate or charter, we could be held liable for resulting damages, which may involve claims from injured passengers, and survivors of deceased passengers and property owners. The amount of our insurance coverage may not be adequate to cover such losses, or we may be forced to bear substantial losses from such events, regardless of our insurance coverage. Moreover, any aircraft accident or incident, even if fully insured, and whether involving us or other private aircraft operators, could create a public perception that we are less safe or reliable than other private aircraft operators, which could cause our customers to lose confidence in us.

We incur considerable costs to maintain the quality of (i) our safety program, (ii) our training programs and (iii) our fleet of aircraft. These costs may increase. If we are unable to maintain an acceptable safety record, we may not be able to retain existing customers and employees or attract new customers and employees, which could have a material adverse effect on our business, financial condition and results of operations. Failure to comply with regulatory requirements related to the maintenance of our aircraft and associated operations may result in enforcement actions, including revocation or suspension of our operating authorities in the United States.

Significant reliance on aircraft manufactured by a single company and spare parts poses risks to our business and prospects.

As part of our services offered under our NOP, we have acquired a fleet of fixed-wing aircraft. All of the aircraft we currently operate are variants of a single model produced by a single manufacturer. Parts and services from this manufacturer are subject to their product and workmanship warranties and capacity to service aircraft. If this manufacturer fails to adequately fulfill its obligations towards us or experiences interruptions or disruptions in production or provision of services due to, for example, bankruptcy, natural disasters, labor strikes or disruption of its supply chain we may experience a significant delay in the delivery of or fail to receive previously ordered parts, which would adversely affect our revenue and results of operations and could jeopardize our ability to meet the demands of our customers. Although we could choose to operate aircraft of other manufacturers or increase our reliance on third-party operators, such a change would involve substantial expense to us and could disrupt our business activities.

We rely on Pratt & Whitney aircraft engines to power our owned aircraft, and we may enter into program agreements covering certain of our aircraft related to engine maintenance and overhauls for certain aircraft in our fleet. If Pratt & Whitney fails to adequately fulfill its obligations towards us or experiences interruptions or disruptions in production or provision of parts or services due to, for example, bankruptcy, natural disasters, labor strikes or disruption of its supply chain, we may experience a significant delay in the delivery of or fail to receive previously ordered aircraft engines and parts, which could result in grounded aircraft. These disruptions would adversely affect our revenue and profitability and could jeopardize our ability to meet the demands of our customers. In addition, if we fail to meet our obligations or are otherwise in default under the program agreements, our access to aircraft engines and parts may become limited, which could adversely impact our business, operations, cash flow, financial condition and liquidity.

The Federal Aviation Administration, or FAA, could suspend or restrict the use of our aircraft in the event of actual or perceived mechanical problems or safety issues while it conducts its own investigation, whether involving our aircraft or another operator's aircraft.

The availability of pilots to the private aviation industries is limited and may negatively affect our operations and financial condition. Increases in our labor costs adversely affect our business, results of operations and financial condition.

Our pilots are subject to stringent pilot qualification (including medical certification) and crew member flight training standards, or FAA qualification standards, which among other things require minimum flight hours for pilots, mandate strict rules to minimize pilot fatigue and require periodic recertification. These requirements limit the availability of qualified pilot candidates and increase pilot salaries and related labor costs, which increases our operating expenses. Such requirements also impact pilot scheduling, work hours and the number of pilots required to be employed for our operations. Further, in recent years, the airline industry has experienced significant volatility in pilot attrition, including volatility resulting from pilot wage and bonus increases at other industry participants, the growth of air cargo, additional charter operations and airlines, and more pilots reaching retirement age. If our attrition rates are higher than our ability to hire and retain replacement pilots, our operations and financial results would be adversely affected.

In addition, our operations and financial condition may be negatively impacted if we are unable to train pilots in a timely manner. Due to an industry-wide shortage of qualified pilots, driven by the flight hours requirements under the FAA qualification standards, including any special requirements related to certain types of aircraft, and attrition resulting from the hiring needs of other industry participants, pilot training timelines have significantly increased and stressed the availability of flight simulators, instructors and related training equipment. The training of our pilots may not be accomplished in a cost-efficient manner or in a manner timely enough to support our operational needs.

Due to the nature of our NOP services offering, which may require flight routes to various locations across the United States and often on short notice, we may not have access to a qualified pilot at the departure location. We may rely on commercial airlines to fly our pilots to the departure location. An inability to have pilots located in departure locations when necessary may cause us to delay or cancel a flight and could adversely affect our reputation, business, results of operation and financial condition.

We are exposed to operational disruptions due to maintenance and third-party services.

Our aircraft fleet requires regular maintenance work, which may cause operational disruption. Failure to perform timely maintenance and repairs results in aircraft being underutilized which could have an adverse impact on our business, financial condition and results of operations. On occasion, airframe manufacturers and/or regulatory authorities require mandatory or recommended modifications across a particular fleet which may ground a particular type of aircraft. This may cause operational disruption to, and impose significant costs on us. Furthermore, our operations in remote locations, where delivery of components and parts or transportation of maintenance personnel could take a significant period of time, could result in delays in our ability to maintain and repair our aircraft. Any such delays may pose a risk to our business, financial condition and results of operations. Moreover, as our aircraft base increases and our fleet ages, our maintenance costs could potentially increase and we may be unable to manage the composition of our fleet in a manner that reduces costs due to the availability and prices for replacement aircraft and parts.

We rely on third-party service providers to perform functions integral to our operations, including ground handling, landing fees, fueling, maintenance, and other services. Disruptions could occur and increase our operating costs or ability to meet customer demands.

Significant increases in aviation fuel costs could have a material adverse effect on our business, financial condition and results of operations.

Fuel is essential to the operation of our aircraft and to our ability to carry out our aircraft operations. Fuel costs are a key component of our operating expenses for our aircraft operations. A significant increase in fuel costs may impact our flight activity and otherwise negatively impact our revenue, operating expenses and results of operations. In addition, potential increased environmental regulations that might require new fuel sources (e.g., sustainable aviation fuel) could lead to increased costs.

Our insurance may become too difficult or expensive to obtain. If we are unable to maintain sufficient insurance coverage, it may materially and adversely impact our results of operations and financial position.

Hazards are inherent in the operation of aircraft and may result in loss of life and property, potentially exposing us to substantial liability claims arising from the operation of aircraft. We carry insurance customary for the operation of aircraft. Insurance underwriters are required by various federal and state regulations to maintain minimum levels of reserves for known and expected claims. However, underwriters may not have adequate reserves to fund existing and future claims. The number of accidents, as well as the number of insured losses within the aviation and aerospace industries, and the impact of general economic conditions on underwriters may result in increases in premiums above the rate of inflation. To the extent that our existing insurance carriers are unable or unwilling to provide us with sufficient insurance coverage, and if insurance coverage is not available from another source (for example, a government entity), our insurance costs may increase and may result in our being in breach of regulatory requirements or contractual arrangements requiring that specific insurance be maintained, which may have a material adverse effect on our business, financial condition and results of operations.

The operation of aircraft is often affected by factors beyond our control including: air traffic congestion at airports; air traffic control inefficiencies; increased and changing security measures; changing regulatory and governmental requirements; new or changing travel-related taxes; any of which could have a material adverse effect on our business, results of operations and financial condition.

Our aircraft operations are affected by factors beyond our control, including air traffic congestion at airports, air traffic control inefficiencies and staffing shortages, increased and changing security measures, changing regulatory and governmental requirements, and new or changing travel-related taxes. Factors that cause flight delays could prevent us from effectively transporting organs in a timely manner, which could have a material adverse effect on our business, results of operations and financial condition.

In the United States, the federal government singularly controls all U.S. airspace, and aviation operators are completely dependent on the FAA to operate that airspace in a safe, efficient and affordable manner. The air traffic control system, which is operated by the FAA, in the U.S., faces challenges in managing the growing demand for U.S. air travel. U.S. air-traffic controllers often rely on outdated technologies that routinely overwhelm the system and compel aviation operators to fly inefficient, indirect routes resulting in delays and increased operational cost. For example, in January 2023, the FAA experienced an unexpected technical system outage that resulted in all domestic commercial air traffic being temporarily grounded for several hours, which adversely impacted airlines and private aviation industry operators during the duration of the outage. There have also been recent instances where understaffing of certain U.S. air traffic control systems have led to flight delays and cancellations, and resulted in significant costs to aviation operators. These instances are capable of repetition and may harm our business and results of operations in the future.

In addition, discussions regarding privatization of the U.S. air traffic control system are ongoing, which could adversely affect our business. Further, implementation of the Next Generation Air Transport System by the FAA could result in changes to aircraft routings and flight paths that could lead to increased noise complaints and lawsuits, resulting in increased costs.

Our aircraft operations are subject to significant governmental regulation and changes in government regulations imposing additional requirements and restrictions on our aircraft operations could increase our operating costs and result in service delays and disruptions.

All interstate air carriers, including us, are subject to regulation by the DOT, the FAA and other governmental agencies. The laws enforced by these agencies impose substantial costs on us, may reduce air travel demand, and also may restrict the manner in which we conduct our business now or in the future, resulting in a material adverse effect on our operations. We also incur substantial costs in maintaining our current certifications and otherwise complying with the laws and regulations to which we are subject, including airworthiness directives. An adverse decision by a federal agency may have a material adverse effect on our operations, such as an FAA decision to ground, or require time consuming inspections of or maintenance on, all or any of our aircraft. Our business may also be affected if government agencies shut down for any reason or if there is significant automation or another operational disruption, such as those attributed to air traffic control or weather.

In addition, we are subject to restrictions imposed by federal law on foreign ownership of U.S. airlines and aircraft including oversight by the DOT in maintaining our status as a U.S. Citizen (as such term is set forth in Title 49, U.S. Code, Section 40102 and administrative interpretations thereof issued by the DOT or its predecessor or successors, or as the same may be from time to time amended). A failure to comply with or changes to these restrictions may materially adversely affect our business.

Revocation of permits, approvals, authorizations and licenses.

Our aircraft operations require a variety of federal, state and local permits, approvals, authorizations and licenses. Our aircraft operations are subject to regulations and requirements and may be adversely affected if we are unable to comply with existing regulations or requirements or if changes in applicable regulations or requirements occur.

Our aircraft maintenance costs will increase as our fleet ages.

Our aircraft maintenance costs will increase as our fleet ages. Currently, most of the parts on our aircraft are under multi-year warranties, but many of these warranties will expire in the coming years. If any maintenance provider with whom we have a flight hour agreement fails to perform or honor such agreements, we could incur higher interim maintenance costs until we negotiate new agreements. Any unexpected increase in maintenance costs may negatively impact our financial position and results of operations.

Our inability to acquire additional aircraft may adversely affect operations.

Additional aircraft may be needed to service our customers and grow our business. The inability to acquire sufficient aircraft in the secondary market at acceptable prices could adversely affect our business and could jeopardize our ability to meet the demands of our customers or result in continued reliance on third-party charter operations that could result in additional costs or lower reliability. Typically, aircraft manufacturers have a significant backlog of orders resulting in new orders being scheduled more than a year after execution of purchase agreements. Furthermore, manufacturers can face production delays due to many factors, including natural disasters, pandemics, supply chain disruptions, labor strikes or availability of skilled labor.

Risks Related to Our Business

Failure to maintain an ethical and inclusive corporate culture, or damage to our reputation, could have a material adverse effect on our business.

We strive to create a culture in which our employees act with integrity, treat each other with respect and consider themselves empowered to report suspected misconduct. Our ability to attract and retain a high-quality workforce depends upon our commitment to a diverse and inclusive environment, along with our perceived trustworthiness and ethics. Issues can arise in any number of circumstances, including employment-related offenses such as workplace harassment and discrimination, regulatory noncompliance, failure to properly use and protect data and systems, and violations of our employee policies, as well as from actions taken by regulators or others in response to such conduct. Addressing allegations of misconduct detracts focus from business operations and is expensive. We have adopted policies to promote compliance with laws and regulations as well as to foster a respectful workplace for all employees. These policies, which include a code of business conduct and ethics, an insider trading policy, a Regulation FD policy, a sexual harassment policy, a regulated fraternization policy, and a whistleblower policy, are a component of our effort to minimize employee misconduct as well as activities that frequently result in allegations of misconduct. We continuously assess our policies and provide training to our employees, but our employees may fail to abide by these policies. In addition to damaging our reputation, actual or alleged misconduct could affect the confidence of our shareholders, regulators and other parties and could have a material adverse effect on our business, financial condition and operating results.

Failure to protect our information technology infrastructure against cyber-based attacks, network security breaches or data corruption could materially disrupt our operations and adversely affect our business and operating results.

The efficient operation of our business depends on our information technology systems. We rely on our information technology systems to effectively manage sales and marketing data, accounting and financial functions, inventory management, product development tasks, clinical data, donor and patient data, customer service and technical support functions. However, our information technology systems are vulnerable to damage or interruption, including from earthquakes, fires, floods and other natural disasters; terrorist attacks; cyber-based attacks; attacks by computer viruses or hackers; insider sabotage; ransomware; power losses, computer system or data network failures; security breaches and data corruption. The failure of either our or our service providers' information technology could disrupt our entire operation or result in decreased sales, increased overhead costs and product shortages, all of which could materially and adversely affect our business, financial condition, operating results, reputation, regulatory compliance, litigation exposure, cash flows and prospects. In addition, our software systems include cloud-based applications that are hosted by third-party service providers with security and information technology systems subject to similar risks, and we may not have accurate or complete information about the risks they face or the security of their systems.

As the cyber-threat landscape evolves, attacks are growing in frequency, sophistication and intensity, are becoming increasingly difficult to detect, and are being perpetrated by a broadening array of threat actors, including criminal hackers, hacktivists, nation-states and state-sponsored actors, perpetrators of industrial espionage and sabotage, and inside threats. New and expanding threats to our information systems, including computer viruses, ransomware and phishing attacks, insider attacks, and more sophisticated and targeted cyber-related attacks, as well as cybersecurity failures resulting from human error and technological errors, pose a risk to the security of our systems and the systems of our customers, business partners and suppliers, as well the confidentiality, availability and integrity of the data we process. For example, during the second quarter of 2023, we became aware of an infiltration of portions of our information technology network. As part of our investigation into this incident, we engaged outside security experts and identified unauthorized theft of data although no sensitive data were involved and we do not store patient related data on our network or anywhere within the company premises. We have implemented additional security safeguards that we believe have secured the system, however, these additional security safeguards may not be successful. While the impact from this incident was not material to the operations of the Company, future impacts from such threats may be material. While we maintain insurance coverage for these types of incidents, such policies, may not provide coverage for, or offset the costs of responding to and remediating this infiltration or any other such incidents or any other liability that may arise from this infiltration or any other such incident.

We have access to sensitive, confidential or personal data or information that is subject to privacy and security laws, regulations or customer-imposed controls. Despite our implementation of controls designed to protect our systems and sensitive, confidential or personal data or information, we have suffered the infiltration described above (and may have suffered other intrusions in the past) and may in the future be vulnerable to material security breaches, theft, misplaced, lost or corrupted data, employee errors and/or malfeasance (including misappropriation by departing employees) that could potentially lead to the compromising of sensitive, confidential or personal data or information.

While we attempt to mitigate these risks by employing a number of measures, including employee training and maintenance of protective systems, such measures did not prevent the infiltration described above and may not prove adequate to prevent cyberattacks, and we remain potentially vulnerable to additional known or unknown threats. The impact from such threats could be material. A significant cybersecurity incident could result in a range of potentially material negative consequences for us, including lost revenue; unauthorized access to, disclosure, modification, misuse, loss or destruction of company systems or data; theft of sensitive, regulated or confidential data, such as personal identifying information or our intellectual property; the loss of functionality of critical systems through ransomware, denial of service or other attacks; business delays, service or system disruptions, damage to equipment and injury to persons or property, and increased insurance premiums. The costs and operational consequences of defending against, preparing for, responding to and remediating an incident may be substantial. Further, we could be exposed to litigation, regulatory enforcement or other legal action as a result of an incident, carrying the potential for damages, fines, sanctions or other penalties, as well injunctive relief requiring costly compliance measures. Any cybersecurity incident could also impact our brand, harm our reputation and adversely impact our relationship with our customers, employees and stockholders.

Economic, political and other risks associated with foreign operations could adversely affect our international sales and our results of operations.

Because we market the OCS in countries in Europe, Asia-Pacific, Central Asia and Canada and plan to market it in other international markets, we are subject to risks associated with doing business internationally. During the years ended December 31, 2023, 2022 and 2021, 6%, 10% and 28%, respectively, of our revenue was generated from customers located outside of the United States. We anticipate that international sales will continue to represent a portion of our total sales. In addition, some of our employees and suppliers are located outside of the United States. Accordingly, our results of operations could be harmed by a variety of factors, including:

- changes in a country's or region's political or economic conditions;
- longer payment cycles of foreign customers and difficulty of collecting receivables in foreign jurisdictions;
- different or changing regulatory or insurance practices regarding reimbursement for transplant procedures;
- difficulties in developing effective marketing campaigns in unfamiliar foreign countries;
- trade protection measures, import or export licensing requirements or customs clearance and shipping delays;
- fluctuations in foreign currency exchange rates;

- differing tax laws and changes in those laws in the countries in which we are subject to tax, or 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;
- changes in international legislation or regulations governing the approval or clearance process for the OCS or ongoing compliance requirements;
- differing business practices associated with foreign operations;
- difficulties in staffing and managing our international operations;
- political, social, and economic instability abroad, terrorist attacks, and security concerns in general;
- the burdens of complying with a wide variety of foreign laws and different legal standards, such as anti-bribery laws, including the FCPA, and UK Bribery Act of 2010, or the Bribery Act, data privacy requirements, labor laws and anti-competition regulations;
- differing protection of intellectual property; and
- increased financial accounting and reporting burdens and complexities.

We rely on shipping providers to deliver products to our customers globally. Labor, tariff or World Trade Organization-related disputes, piracy, physical damage to shipping facilities or equipment caused by severe weather or terrorist incidents, congestion at shipping facilities, inadequate equipment to load, dock and offload our products, energy-related tie-ups or other factors could disrupt or delay shipping or off-loading of our products domestically and internationally. Such disruptions or delays could materially and adversely affect our business, financial condition, operating results, cash flows and prospects.

If one or more of these risks are realized, our business, financial condition, operating results, cash flows and prospects could be materially and adversely affected.

Our success depends on our ability to retain our founder and President and Chief Executive Officer and other members of our management team and to attract, retain and motivate qualified personnel.

Our success depends on our continued ability to attract, retain and motivate highly qualified clinicians, surgeons, scientists, engineers, managers and sales personnel. Dr. Waleed H. Hassanein, our founder and President and Chief Executive Officer, and other members of our management team are important to the success of our operations. All of these key employees, including Dr. Hassanein, are at-will employees and can terminate their employment with us at any time. The loss of any of these key members of our management team and, in particular, Dr. Hassanein, could impede our achievement of our research, development and commercialization objectives. We maintain a “key person” insurance policy on the life of Dr. Hassanein, but we do not maintain such insurance on any of our other employees.

In addition, our expected growth will require us to hire a significant number of qualified personnel, including clinical development, regulatory, sales, marketing, engineering, scientific, clinical, logistics and aviation support and administrative personnel. There is intense competition from other companies and research and academic institutions for qualified personnel in the areas of our activities. If we cannot continue to attract and retain, on acceptable terms, the qualified personnel necessary for the continued development of our business, we might not be able to sustain our operations or become profitable.

The failure to manage our growth effectively could harm our business.

To manage our anticipated future growth effectively, we must enhance our manufacturing and sterilization capabilities, information technology infrastructure and financial and accounting systems and controls. Our growth will require significant capital expenditures and may divert financial resources from other projects, such as the development of the OCS for transplants involving additional indications or other organs. Our NOP, an innovative turnkey solution to provide outsourced organ retrieval, OCS organ management and logistics services, will also require additional capital expenditures. If we are unable to effectively manage our growth, our expenses may increase more than expected, our revenue could grow more slowly than expected and we might not be able to achieve our research and development and commercialization goals, which in turn could materially and adversely affect our business, financial condition, operating results, cash flows and prospects.

Risks Related to Our Intellectual Property

If we infringe or are alleged to infringe the intellectual property rights of third parties or are otherwise subject to litigation or other proceedings regarding our intellectual property rights, our business or competitive position could be adversely affected.

Our commercial success will depend in part on not infringing, misappropriating or otherwise violating the patents or other intellectual property or proprietary rights of others. Significant litigation regarding patent and other intellectual property rights occurs in the medical device industry. Third parties may claim that the OCS or aspects or uses of the OCS infringe intellectual property rights for which we do not hold licenses or other rights in the United States and abroad. Third parties in both the United States and abroad may have applied for or obtained, or may in the future apply for and obtain, patents that will prevent, limit or otherwise interfere with our ability to make, use and sell our products.

Given the vast number of patents in our field of technology, we cannot be certain that we do not infringe existing patents or that we will not infringe patents that may be granted in the future. For example, patent applications in the United States and elsewhere can be pending for many years before issuance, or unintentionally abandoned patents or applications can be revived, so there may be applications of others now pending or recently revived patents of which we are unaware. These applications may later result in issued patents, or the revival of previously abandoned patents, that will prevent, limit or otherwise interfere with our ability to make, use or sell our products. Third parties may, in the future, assert claims that we are employing their proprietary technology without authorization, including claims from competitors or from non-practicing entities that have no relevant product revenue and against whom our own patent portfolio may have no deterrent effect. As we continue to commercialize our products in their current or updated forms, launch new products and enter new markets, competitors may claim that one or more of our products infringe their intellectual property rights as part of business strategies designed to impede our successful commercialization and entry into new markets. The large number of patents, the rapid rate of new patent applications and issuances, the complexities of the technology involved, and the uncertainty of litigation may increase the risk of business resources and management's attention being diverted to patent litigation.

If any third-party patents were asserted against us, even if we believe such claims are without merit, there is no assurance that a court would find in our favor on questions of infringement, validity, enforceability, or priority. A court of competent jurisdiction could hold that the asserted third-party patents are valid, enforceable, and infringed, which could materially and adversely affect our ability to commercialize our products. In order to successfully challenge the validity of any U.S. patent in federal court, we would need to overcome a presumption of validity. As this burden is a high one requiring us to present clear and convincing evidence as to the invalidity of any such U.S. patent claim, there is no assurance that a court of competent jurisdiction would invalidate the claims of any such U.S. patent. We may choose or, if we are found to infringe a third party's patent rights and we are unsuccessful in demonstrating that such patents are invalid or unenforceable, we could be required to obtain a license from such third party to continue developing, manufacturing, and marketing any of our products. However, we may not be able to obtain any required license on commercially reasonable terms or at all. Even if we were able to obtain a license, it could be non-exclusive, thereby giving our competitors and other third parties access to the same technologies licensed to us, and it could require us to make substantial licensing and royalty payments. We also could be forced, including by court order, to cease developing, manufacturing, and commercializing the infringing technology or products. In addition, we could be found liable for significant monetary damages, including treble damages and attorneys' fees if we are found to have willfully infringed a patent or other intellectual property right. There could also be public announcements of the results of hearing, motions, or other interim developments. If securities analysts or investors perceive these results to be negative, it could have a material adverse effect on the price of shares of our common stock. Claims that we have misappropriated the confidential information or trade secrets of third parties could have a similar material adverse effect on our business, financial condition, results of operations and prospects.

Our industry has experienced substantial litigation and other proceedings regarding patent and other intellectual property rights and lawsuits to protect or enforce our patents and other intellectual property rights could be expensive, time-consuming and unsuccessful.

In addition to infringement claims against us, we may become a party to other types of patent litigation and other proceedings, including post-grant proceedings declared by the United States Patent and Trademark Office, or USPTO, and opposition proceedings in the European Patent Office, regarding intellectual property rights with respect to the OCS. For example, we may be subject to a third-party preissuance submission of prior art to the USPTO, or become involved in post-grant review procedures, oppositions, derivations, reexaminations, *inter partes* review or interference proceedings, in the United States or elsewhere, challenging our patent rights or the patent rights of others. An adverse determination in any such challenges may result in loss of exclusivity or in patent claims being narrowed, invalidated or held unenforceable, in whole or in part, which could limit our ability to stop others from using or commercializing similar or identical technology and products, or limit the duration of the patent protection of our technology and products. The cost to us of any patent litigation or other proceeding, even if resolved in our favor, could be substantial. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their greater financial resources. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could have a material adverse effect on our ability to compete. Patent litigation and other proceedings may also absorb significant management time.

In addition, competitors and other third parties may infringe, misappropriate or otherwise violate our patents and other intellectual property rights. To counter infringement or unauthorized use, we may be required to file infringement claims, which can be expensive and time-consuming and divert the time and attention of our management. In addition, many of our adversaries in these proceedings may have the ability to dedicate substantially greater resources to prosecuting these legal actions than we can.

A court may disagree with our allegations and may refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover the third-party technology in question. Furthermore, the other party could counterclaim that we infringe their intellectual property or counterclaim that a patent we have asserted against them is invalid or unenforceable, or both. In patent litigation in the United States, counterclaims challenging the validity, enforceability or scope of asserted patents are commonplace. Similarly, third parties may initiate legal proceedings against us seeking a declaration that certain of our intellectual property rights are non-infringed, invalid, or unenforceable. The outcome of any such proceeding is generally unpredictable.

An adverse result in any litigation proceeding could put one or more of our patents at risk of being invalidated or interpreted narrowly. If a defendant were to prevail on a legal assertion of invalidity or unenforceability of our patents covering one of our products, we would lose at least part, and perhaps all, of the patent protection covering such product. Competing products may also be sold in other countries in which our patent coverage might not exist or be as strong. Any of these outcomes would have a material adverse effect on our business.

Because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during litigation. There could also be public announcements of the results of hearing, motions, or other interim developments. If securities analysts or investors perceive these results to be negative, it could have a material adverse effect on the price of shares of our common stock. Even if we ultimately prevail, a court may decide not to grant an injunction against further infringing activity and instead award only monetary damages, which may not be an adequate remedy. Furthermore, the monetary cost of such litigation and the diversion of the attention of our management could outweigh any benefit we receive as a result of the proceedings. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could have a material adverse effect on our business.

If we are unable to establish, maintain or adequately protect our intellectual property rights relating to the OCS, the commercial value of the OCS will be adversely affected and our competitive position could be harmed.

Our success and ability to compete depend in part upon our ability to establish and maintain intellectual property rights covering the OCS in the United States and other countries. We own several patents and patent applications in the United States and corresponding patents and patent applications in a number of foreign jurisdictions. With respect to the patents and patent applications that we own, any patents that have or may issue from our currently issued or pending patent applications would be expected to expire between 2025 and 2043, assuming all required fees are paid.

However, we cannot provide any assurances that any of our patents have, or that any of our pending patent applications that mature into issued patents will include, claims with a scope sufficient to protect our OCS technology, any additional features we develop for our OCS technology or any new products. Other parties may have developed technologies that may be related to or competitive with our system, may have filed or may file patent applications and may have received or may receive patents that overlap or conflict with our patent applications, either by claiming the same methods or devices or by claiming subject matter that could dominate our patent position. The patent positions of medical device companies, including our patent position, may involve complex legal and factual questions, and, therefore, the scope, validity and enforceability of any patent claims that we may obtain cannot be predicted with certainty. Our pending and future patent applications may not issue as patents or, if issued, may not issue in a form that will be advantageous to us. Even if issued, our patents may be challenged, narrowed, held unenforceable, invalidated or circumvented, or others could challenge the inventorship, ownership or enforceability of our patents and patent applications, any of which could limit our ability to stop competitors from marketing similar products or limit the term of patent protection we may have for our products, or cause us to lose our right to manufacture, market and sell the OCS products or components of the OCS products. Additionally, the Leahy-Smith America Invents Act, or 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, redefine prior art, and provide more efficient and cost-effective avenues for competitors to challenge the validity of patents. In addition, the Leahy-Smith Act has transformed the U.S. patent system into a first-to-file system. The first-to-file provisions became effective on March 16, 2013. It is not clear what, if any, impact the Leahy-Smith Act will have on the operation of our business. For example, the Leahy-Smith Act provides that an administrative tribunal known as the Patent Trial and Appeals Board, or PTAB, provides a venue for challenging the validity of patents at a cost that is much lower than district court litigation and on timelines that are much faster. Proceedings challenging our patents could result in either loss of the patent or denial of the patent application or loss or reduction in the scope of one or more of the claims of the patent or patent application. Furthermore, an adverse decision in an interference proceeding can result in a third party receiving the patent right sought by us, which in turn could affect our ability to commercialize our products.

Changes in either patent laws or in interpretations of patent laws in the United States and other countries may diminish the value of our intellectual property or narrow the scope of our patent protection, which in turn could diminish the commercial value of the OCS. The laws of some foreign countries do not protect our proprietary rights to the same extent as the laws of the United States, and we may encounter significant problems in protecting our proprietary rights in these countries.

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 the OCS;
- 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 any 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.

If we are unable to obtain patent term extension under the Hatch-Waxman Act, our business may be materially harmed.

Depending upon the timing, duration and specifics of FDA marketing approval of our products, one or more of the U.S. patents we own or license may be eligible for limited patent term restoration under the Drug Price Competition and Patent Term Restoration Act of 1984, referred to as the Hatch-Waxman Act. The Hatch-Waxman Act permits a patent restoration term of up to five years for a patent covering an approved product as compensation for effective patent term lost during product development and the FDA regulatory review process. However, even if, at the relevant time, we have an issued patent covering our product, we may not be granted an extension if we were, for example, to fail to exercise due diligence during the testing phase or regulatory review process, to fail to apply within applicable deadlines or prior to expiration of relevant patents or otherwise to fail to satisfy applicable requirements. Moreover, the time period of the extension or the scope of patent protection afforded could be less than we request. Only one patent per approved product can be extended, the extension cannot extend the total patent term beyond 14 years from approval and only those claims covering the approved product, a method for using it or a method for manufacturing it may be extended. If we are unable to obtain patent term extension or restoration or the term of any such extension is less than we request, the period during which we can enforce our patent rights for the applicable product will be shortened and our competitors may obtain approval of competing products following our patent expiration. As a result, our ability to generate revenue could be materially adversely affected. Further, if this occurs, our competitors may take advantage of our investment in development and trials by referencing our clinical and preclinical data and launch their product earlier than might otherwise be the case. If we do not have adequate patent protection or other exclusivity for our products, our business, financial condition or results of operations could be materially adversely affected.

We may be unable to enforce our intellectual property rights throughout the world.

The laws of some foreign countries do not protect intellectual property rights to the same extent as the laws of the United States. Many companies have encountered significant problems in protecting and defending intellectual property rights in certain foreign jurisdictions. This could make it difficult for us to stop infringement of our foreign patents, if obtained, or the misappropriation of our other intellectual property rights. For example, some foreign countries have compulsory licensing laws under which a patent owner must grant licenses to third parties. In addition, some countries limit the enforceability of patents against third parties, including government agencies or government contractors. In these countries, patents may provide limited or no benefit. Patent protection must ultimately be sought on a country-by-country basis, which is an expensive and time-consuming process with uncertain outcomes. Accordingly, we may choose not to seek patent protection in certain countries, and we will not have the benefit of patent protection in such countries.

Proceedings to enforce our patent rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business. Accordingly, our efforts to protect our intellectual property rights in such countries may be inadequate. In addition, changes in the law and legal decisions by courts in the United States and foreign countries may affect our ability to obtain adequate protection for our technology and the enforcement of our intellectual property.

If we are unable to protect the confidentiality of our trade secrets, the value of the OCS and our business and competitive position could be harmed.

In addition to patent protection, we also rely upon trade secret protection, as well as non-disclosure agreements and invention assignment agreements with our employees, consultants and third parties, to protect our confidential and proprietary information. In addition to contractual measures, we try to protect the confidential nature of our proprietary information using commonly accepted physical and technological security measures. Such measures may not, for example, in the case of misappropriation of a trade secret by an employee or third party with authorized access, provide adequate protection for our proprietary information. Our security measures may not prevent an employee or consultant from misappropriating our trade secrets and providing them to a competitor, and recourse we take against such misconduct may not provide an adequate remedy to protect our interests fully. Unauthorized parties may also attempt to copy or reverse engineer certain aspects of our products that we consider proprietary. Enforcing a claim that a party illegally disclosed or misappropriated a trade secret can be difficult, expensive and time-consuming, and the outcome is unpredictable. Even though we use commonly accepted security measures, trade secret violations are often a matter of state law, and the criteria for protection of trade secrets can vary among different jurisdictions. In addition, trade secrets may be independently developed by others in a manner that could prevent legal recourse by us. We also have agreements with our employees, consultants and third parties that obligate them to assign inventions made in the course of their work for us to us, however these agreements may not be self-executing, not all employees or consultants may enter into such agreements, or employees or consultants may breach or violate the terms of these agreements, and we may not have adequate remedies for any such breach or violation. If any of our intellectual property or confidential or proprietary information, such as our trade secrets, were to be disclosed or misappropriated, or if any such information was independently developed by a competitor, the value of the OCS and our business and competitive position could be harmed.

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, hospitals or other third parties. 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, competitors or other third parties. Additionally, we may be subject to claims from third parties challenging our ownership interest in or inventorship of intellectual property we regard as our own, based on claims that our agreements with employees or consultants obligating them to assign intellectual property to us are ineffective or in conflict with prior or competing contractual obligations to assign inventions to another employer, to a former employer, or to another person or entity. Litigation may be necessary to defend against 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 or a settlement payment, a court could prohibit us from using technologies, features or other intellectual property 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, features or other intellectual property that are important or essential to our products could have a material adverse effect on our business and competitive position, and may prevent us from selling our products. In addition, we may lose valuable intellectual property rights or personnel. Even if we are successful in defending against these claims, litigation could result in substantial costs and could be a distraction to management. Any litigation or the threat thereof may adversely affect our ability to hire employees or contract with independent sales representatives. A loss of key personnel or their work product could hamper or prevent our ability to commercialize our products, which could materially and adversely affect our business, financial condition, operating results, cash flows and prospects.

Risks Related to Government Regulation

Even after approval for the OCS, we are subject to continuing regulation by regulatory authorities and entities in the United States and other countries, and if we fail to comply with any of these regulations, our business could suffer.

Even after approval of the OCS for a specific indication, we are subject to extensive continuing regulation by the FDA and other regulatory authorities and entities. We are subject to Medical Device Reporting regulations, which require us to report to the FDA if we become aware of information that reasonably suggests our product may have caused or contributed to a death or serious injury, or has malfunctioned and the device or a similar device we market would likely cause or contribute to a death or serious injury if the malfunction were to recur. We must report corrections and removals to the FDA where the correction or removal was initiated to 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 maintain records of other corrections or removals. The FDA closely regulates promotion and advertising and all claims that we make for the OCS. If the FDA determines that our promotional materials, training or advertising activities constitute promotion of an unapproved use of the OCS, it could request that we cease or modify our training or promotional materials or subject us to regulatory enforcement actions.

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

- untitled letters, warning letters, fines, injunctions, consent decrees and civil penalties;
- recall, suspension or termination of distribution, administrative detention, injunction or seizure of organ-specific OCS Consoles or disposable sets;
- customer notifications or repair, replacement or refunds;
- operating restrictions or partial suspension or total shutdown of production;
- refusing or delaying our requests for premarket approval of new products or for modifications to existing products, and refusing or delaying our requests for PMAs for new intended uses of the OCS;

- withdrawing or suspending PMA approvals that have already been granted, resulting in prohibitions on sales of our products;
- FDA refusal to issue certificates to foreign governments needed to export products for sale in other countries; and
- criminal prosecution.

Any corrective action, whether voluntary or involuntary, as well as potentially 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.

For our currently marketed OCS Lung, OCS Heart and OCS Liver, as part of the conditions of approval, we must complete PMA post-approval studies. For example, the OCS Lung TOP Registry must be completed, which is a prospective, single-arm, multi-center, observational study designed to evaluate short- and long-term safety and effectiveness of the OCS Lung for both donor lungs currently utilized and unutilized for transplantation. Our TOP Registry entails submission of regular reports to the FDA. Failure to comply with the conditions of approval can result in material adverse action, including withdrawal of the approval.

We also are required to comply with strict post-marketing obligations that accompany the affixing of the CE Mark to medical devices in the European Union. These include the obligation to report incidents which meet the criteria for reporting, and to provide periodic safety update reports and trend reports. Additionally, national competent authorities in the European Union also closely monitor the marketing programs implemented by device companies. The obligations that companies must fulfill concerning premarketing approval of promotional material vary among member states of the European Union. A failure to comply with our obligations in marketing and promoting the OCS in the European Union could harm our business and results of operations.

In addition, certain changes and other events with respect to regulatory approvals may cause an event of default under our CIBC Credit Agreement. See “Item 7. Management’s Discussion and Analysis - Long-Term Debt,” in this Annual Report on Form 10-K.

Our products have been and may in the future be subject to product recalls that could harm our reputation and could materially and adversely affect our business, financial condition, operating results, cash flows and prospects.

The OCS must be manufactured in accordance with federal and state regulations, and we or any of our suppliers or third-party manufacturers could be forced to recall our installed systems or suspend or terminate production if we fail to comply with these regulations. 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, manufacture or labeling. In the case of the FDA, the recall order must be based on an FDA finding that there is a reasonable probability that the device would cause serious adverse health consequences or death. In addition, foreign governmental bodies have the authority to require the recall of our products in the event of material deficiencies or defects in design or manufacture. Manufacturers may, under their own initiative, recall a product if any material deficiency in a device is found. A government-mandated or voluntary recall by us could occur as a result of component failures, security failures, manufacturing errors, design or labeling defects or other deficiencies and issues. Recalls of any of our products would divert managerial and financial resources and have an adverse effect on our financial condition and results of operations. The FDA requires that recalls initiated to 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 be reported to the FDA within 10 working days after the recall is initiated. Companies are required to maintain records of recalls, even if they are not reportable to the FDA. We may initiate voluntary recalls involving our products in the future that we determine do not require notification of the FDA. If the FDA disagrees with our determinations, we could be required to report those actions as recalls. A recall announcement could harm our reputation with customers and negatively affect our sales. Additionally, 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. In addition, the FDA could take enforcement action for failing to report the recalls when they were conducted, including warning letters, untitled letters, administrative actions, criminal prosecution, imposition of civil monetary penalties, seizure of our products or delay in clearance or approval of future products.

We have voluntarily recalled certain OCS products from clinical sites in the past and may need to take similar actions in the future, which may result in notices to regulatory agencies in other jurisdictions. As we continue to expand commercialization of our products and sell OCS products to new customers, the impact of any future product recall increases, and any future product recalls would require greater administrative and response efforts than historical product recalls.

Internationally, the approaches to product defects will vary. A product may be recalled in one country but not in others. However, within the European Union, competent authorities are required without delay to take corrective action against a device (including withdrawal/recall of a device) and notify other national competent authorities, the European Commission and notified bodies (as applicable) of any devices that present an unacceptable risk to the health or safety of patients, users or other persons, or other aspects of the protection of public health. Other non-compliance with the MDR may also lead to corrective action being taken and notifications being sent if the non-compliance is not rectified within a given time period (as determined by the competent authority). Therefore, a recall in one EU member state may lead to recalls in the rest of the European Union.

If we fail to maintain necessary FDA approvals for the OCS, or obtain necessary FDA approval for future uses of the OCS, we will not be able to commercially sell and market the OCS.

The OCS products are medical devices subject to extensive regulation in the United States by the FDA and other federal, state and local authorities. The FDA regulates the design, development, testing, manufacturing, labeling, selling, promoting, distributing, importing, exporting and shipping of the OCS. We have obtained a PMA for each of the OCS Lung, OCS Liver and OCS Heart for both DBD and DCD indications. We received 510(k) clearances for the OCS Lung Solution for cold flush, storage and transportation of donor lungs in July 2021, for the OCS Lung Donor Flush Set in November 2022, and for the OCS Heart Leukocyte Reducing Filter in October 2023.

PMA approval could be withdrawn or other restrictions imposed if post-market data demonstrate safety issues or inadequate performance. The FDA can also require removal of 510(k) cleared devices from the market in case of safety issues.

If we are not able to maintain the necessary regulatory approvals for the OCS, or obtain the necessary regulatory approvals or clearances for future products on a timely basis or at all, our financial condition and results of operations would suffer, possibly materially, and our business might fail.

If we fail to maintain the CE Mark in the European Union, Northern Ireland and the UKCA mark (as applicable) in Great Britain, we will not be able to commercially sell and market the OCS in the EU or UK.

In the European Union, we have the right to affix a CE Mark for the sale of the OCS Lung, OCS Heart and OCS Liver for lung, heart and liver transplants, respectively. Our notified body, BSI, is based in the Netherlands and issues the certificates that allow CE marking of the OCS products. Our sales in the EU are dependent on obtaining and maintaining the CE Mark certifications for each of our OCS products. As required by the MDR, we received recertification of the CE Mark in September 2022 for each of the OCS Heart and OCS Lung systems, which includes the OCS Console, the OCS disposables, and the OCS solution additives. We also received the recertification of the CE Mark in September 2022 for the OCS Liver Console and disposables. We received the CE Mark for the OCS Liver combined with our solution additives under the MDR in May 2023, with an effective date of April 2023. In order to be able to continue to use the CE Mark we will have to meet the conditions set out in the MDR.

Post-Brexit the MDR applies in Northern Ireland in accordance with the Northern Ireland Protocol but does not apply in Great Britain (England, Wales and Scotland). The UK Medical Devices Regulations 2002 (UK MDR 2002) provided a transitional period under which the UK will recognize EU CE marks and the MHRA has confirmed that this will be extended potentially until June 30, 2030 (subject to certain conditions). To be placed on the market in Great Britain after this date, medical devices must have undergone a conformity assessment in accordance with the UK MDR 2002 and have the UKCA mark affixed. However, even devices that benefit from the transition period must still comply with the other requirements of the UK MDR 2002; for example, there are broader registration requirements with the Medicines and Healthcare products Regulatory Agency, or the MHRA, and if the manufacturer is located outside the UK, a UK Responsible Person must be appointed.

To continue to place products on the market in the European Union and United Kingdom, we will need to meet the conditions set out in the EU MDR or UK MDR 2002, as applicable. We might not be able to continue to place the devices on the market in the European Union and/or United Kingdom for any current use of the OCS if we are not able to maintain certifications of our products for their current use under the MDR and/or obtain certification under the UK MDR 2002 when required. If any variation in the uses for which the CE/UKCA mark has been affixed to the OCS requires us to perform further research or to modify the technical documentation required to affix the CE/UKCA mark, our revenue and operating results could be adversely affected and our reputation could be harmed.

If we fail to obtain and maintain regulatory approval in foreign jurisdictions, our market opportunities will be limited.

FDA clearance or approval or a CE mark does not ensure approval by regulatory authorities in other countries, and approval by one foreign regulatory authority does not ensure approval by regulatory authorities in other foreign countries. However, the failure to obtain clearance or approval in one jurisdiction may have a negative impact on our ability to obtain clearance or approval elsewhere. If we do not obtain or maintain necessary market authorizations to commercialize our products in markets outside the United States, it would negatively affect our overall market penetration. For example, if, as a result of manufacturing error, the efficacy of our products does not meet the standards claimed in the accompanying instructions for use, regulatory authorities could prevent our products from being placed on the market in the European Union, Northern Ireland, Great Britain and elsewhere.

If transplant centers and hospitals cannot obtain adequate reimbursement or funding from governments or third-party payors for purchases of the OCS and additional disposable sets and for costs associated with procedures that use the OCS and the NOP, our prospects for generating revenue and achieving profitability will suffer materially.

Our prospects for generating revenue and achieving profitability depend heavily upon the availability of adequate reimbursement or funding in both the United States and other markets for purchases of the OCS and for organ transplant procedures that use the OCS and the NOP.

In the United States, Medicare generally reimburses the facilities in which transplant procedures are performed based upon prospectively determined amounts. For hospital inpatient treatment, the Medicare prospective payment generally is determined by the patient's condition and other patient data and procedures performed during the patient's hospital stay, using a classification system known as MS-DRGs. Prospective rates are adjusted for, among other things, regional differences and whether the hospital is a teaching hospital. Because prospective payments are based on predetermined rates and may be less than a hospital's actual costs in furnishing care, hospitals have incentives to lower their inpatient operating costs by utilizing products, devices and supplies that will reduce the length of patients' hospital stays, decrease labor or otherwise lower their costs.

In addition to these MS-DRG-based payments, Medicare reimburses transplant centers for "reasonable and necessary" organ acquisition costs, which are considered "pass-through" costs from the prospective payment system, and are not based on the payments for the applicable MS-DRG. Pass-through organ acquisition costs include services required for the acquisition of an organ, such as tissue typing, organ preservation, transport of organs, donor evaluation and other acquisition costs. The separate payments for these costs are determined on a reasonable cost basis established through the transplant center's Medicare cost report. The costs incurred by transplant centers for the organ-specific OCS Console, OCS Perfusion Sets and OCS Solutions are classified as organ acquisition costs for which Medicare provides additional reimbursement. However, Medicare does not reimburse for items determined not to be reasonable and necessary for diagnosis or treatment of an illness or injury. The CMS and Medicare contractors who administer Medicare around the country have substantial discretion in determining whether the OCS is reasonable and necessary in this context. Either CMS or a Medicare contractor might determine that Medicare will not cover and reimburse for the cost of the OCS in the absence of reliable clinical data evidencing the benefits to patients of the use of the OCS. The data we collect from our prior, ongoing and planned clinical studies and patient registry may not be sufficient for this purpose in a coverage determination by CMS or a Medicare contractor. Accordingly, Medicare might not reimburse transplant centers for all or a portion of the cost of the OCS. We believe that private insurers and other public insurers in the United States generally will follow the coverage and payment policies of Medicare.

Outside of the United States, reimbursement and funding systems vary significantly by country, and within some countries, by region. Many foreign markets have government managed healthcare systems that govern reimbursement and funding for medical devices and procedures. In the European Union member states, the costs associated with organ transplant procedures may be paid for by national insurance and in some cases private insurers or by both national insurance and private insurers, depending on the priorities established by individual programs. These reimbursement arrangements are subject to complex rules and regulations at the national and regional levels that can vary between member states of the European Union and may require that we perform additional clinical studies to demonstrate that the OCS is superior to existing preservation methods. We have no studies currently planned to collect such clinical data, and any studies of this kind likely would be expensive and lengthy and may not ultimately produce results adequate to secure reimbursement. In some cases, we might not be able to secure adequate reimbursement for the OCS at all or until we have collected additional clinical data supporting the benefits associated with the use of the OCS in transplant procedures. Hospitals or surgeons in countries or regions where separate additional reimbursement or funding for the OCS is not available may determine that the benefits of the OCS do not or will not outweigh the cost of the OCS. Alternatively, we may be required to enter into risk sharing arrangements with payers.

Adoption of our products in the European Union may be hindered if they impede our customer's compliance with the requirements of Directive 2010/53/EU (formerly Directive 2010/45/EU), and the Quality and Safety of Organs Intended for Transplantation Regulations 2012 (Statutory Instrument (SI) 2012 No. 1501) (the Regulations) in the United Kingdom which imposes certain standards on procurement, preservation and transport of organs intended for transplantation. Even where reimbursement or funding is available, in some foreign countries, particularly in the European Union, the pricing of medical devices is subject to governmental control. In these countries, reimbursement and pricing negotiations with governmental authorities can take considerable time after the CE marking of a product. For example, some foreign reimbursement systems provide for limited payments in a given period and, therefore, result in extended payment periods, which could hinder adoption of the OCS for use in transplantation, limiting sales. If reimbursement of our products is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, it may not be profitable to sell our products in certain foreign countries, which could negatively affect the long-term growth of our business.

Even if existing reimbursement and funding arrangements of governmental programs and other third-party payors provide for sufficient payments to make purchases of the OCS cost-effective for hospitals, the laws and regulations governing these arrangements are subject to change. The continuing efforts of governments, insurance companies and other payors of healthcare costs to contain or reduce these costs could lead to legislative or regulatory reform of the United States or foreign reimbursement and funding systems in a manner that significantly reduces or eliminates reimbursement for the OCS or for transplant procedures.

If hospitals in the United States or the European Union are not able to obtain reimbursement or funding for the cost of the OCS and additional disposable sets or for transplant procedures generally, they may not have sufficient economic incentives to purchase the OCS. If hospitals or surgeons determine that the benefits of the OCS do not or will not outweigh the initial cost and ongoing expense of the OCS, we might fail to achieve significant sales and may never become profitable.

Reimbursement in international markets is likely to require us to undertake country-specific reimbursement activities, including additional clinical studies, which could be time-consuming and expensive and may not yield acceptable reimbursement rates.

In international markets, market acceptance of our products will likely depend in large part on the availability of reimbursement within prevailing healthcare payment systems. Reimbursement and healthcare payment systems in international markets vary significantly by country, and by region in some countries, and include both government-sponsored healthcare and private insurance. We may not obtain international reimbursement approvals in a timely manner, if at all. In addition, even if we do obtain international reimbursement approvals, the level of reimbursement may not be enough to commercially justify expansion of our business into the approving jurisdiction. To the extent we or our customers are unable to obtain reimbursement for products in major international markets in which we seek to market and sell our products, our international revenue growth would be harmed, and our business and results of operations would be adversely affected.

If we modify our products, we may be required to obtain approval of new PMAs or PMA supplements, vary existing CE Marking, and may be required to cease marketing or recall any modified products until the required approvals are obtained.

Certain modifications to a PMA-approved device or to its manufacturing processes require approval of a new PMA or a PMA supplement, while other modifications can be reported in an annual report or through a 30-day Notice. The FDA may not agree with our decisions regarding whether a new PMA or PMA supplement is necessary. We may make modifications to our approved devices and manufacturing processes in the future that we believe do not require approval of a new PMA application or PMA supplement, or submission of a 30-day Notice. If the FDA disagrees with our determination and requires us to submit a new PMA, PMA supplement or 30-day Notice for modifications to our previously approved products or manufacturing processes, we may be required to cease marketing or to recall the modified product until we obtain approval or submit the 30-day Notice, and we may be subject to significant regulatory fines or penalties. In addition, the FDA may not approve our products for any future indications that are desirable for commercialization or could require clinical trials to support any modification to the device or any modified indications or claims. Any delay or failure in obtaining required approvals would adversely affect our ability to introduce new or enhanced products in a timely manner, which in turn would harm our future growth.

Additionally, any significant change to the quality system or the product range in relation to a CE Marked device will require notification to the notified body which certified the product. The notified body will assess the proposed change. We might not be able to have the CE Mark varied without taking additional steps, or at all. For example, we might need to conduct additional clinical trials and provide additional technical information to the appropriate notified body before the CE Mark can be affixed to the changed product.

If we fail to comply with the FDA’s QSR, or FDA or EU requirements that pertain to clinical trials or investigations, the FDA or the relevant EU competent authority could take various enforcement actions, including halting our manufacturing operations, and our business would suffer.

In the United States, as a manufacturer of a medical device, we are required to demonstrate and maintain compliance with the FDA’s QSR. The QSR is a complex regulatory scheme that covers the methods and documentation of the design, testing, control, manufacturing, labeling, quality assurance, packaging, storage and shipping of medical devices. In February 2024 FDA issued the QSMR Final Rule to amend the QSR, incorporating by reference ISO 13485:2016. Until the QSMR becomes effective on February 2, 2026, we are required to comply with the QSR. The FDA enforces the QSR through periodic inspections and unannounced “for cause” inspections.

We are subject to periodic FDA inspections to determine compliance with QSR and pursuant to the Bioresearch Monitoring Program, which have in the past and may in the future result in the FDA issuing Form 483s, including during the conduct of clinical trials. Outside the United States, our products and operations are also often required to comply with standards set by industrial standards bodies, such as the International Organization for Standardization. For example, in the European Union the MDR includes detailed requirements for clinical investigations, which are in line with the international standard ISO 14155:2020 on good clinical practice, or GCP. Foreign regulatory bodies may evaluate our products or the testing that our products undergo against these standards. The specific standards, types of evaluation and scope of review differ among foreign regulatory bodies. Our failure to comply with FDA or local requirements that pertain to clinical trials/investigations, including GCP requirements, and the QSR (in the United States), or failure to take satisfactory and prompt corrective action in response to an adverse inspection, could result in enforcement actions, including a warning letter, adverse publicity, a shutdown of or restrictions on our manufacturing operations, delays in approving or clearing our products, refusal to permit the import or export of our product, prohibition on sales of our product, a recall or seizure of our products, fines, injunctions, civil or criminal penalties, or other sanctions, any of which could cause our business and operating results to suffer.

We may not be able to obtain or maintain regulatory qualifications outside the United States, which could harm our business.

Sales of the OCS outside the United States are subject to foreign regulatory requirements that vary widely from country to country. The foreign regulatory approval process generally includes all of the risks associated with obtaining FDA clearance or approval in addition to other risks. Complying with international regulatory requirements can be an expensive and time-consuming process, and approval is not certain. The time required to obtain foreign clearances or approvals may exceed the time required for FDA clearance or approval, and requirements for such clearances or approvals may differ significantly from FDA requirements. Foreign regulatory authorities may not clear or approve our product for the same uses cleared or approved by the FDA. In addition, we may not be able to affix the CE Mark to new or modified products and we may fail to obtain any additional regulatory qualifications, clearances or approvals or to comply with additional legal obligations required by the individual member states of the European Union or other countries in which we seek to market the OCS. The FDA also regulates the export of medical devices from the United States. If we are not successful in obtaining and maintaining foreign regulatory approvals or complying with U.S. export regulations, our business will be harmed.

Foreign regulatory agencies periodically inspect manufacturing facilities both in the United States and abroad. While we implement corrective and preventive action related to any inspection observations, we may fail to pass future inspections of our facility by applicable regulatory authorities or entities both in the United States and in other countries. Delays in receiving necessary qualifications, clearances or approvals to market our product outside the United States, or the failure to receive those qualifications, clearances or approvals, or to comply with other foreign regulatory requirements, could limit or prevent us from marketing our products or enhancements in international markets. Additionally, the imposition of new requirements could significantly affect our business and our product, and we might not be able to adjust to such new requirements. If we fail to comply with applicable foreign regulations, we could face substantial penalties and our business, financial condition, operating results, cash flows and prospects could be adversely affected.

We could face product liability suits or regulatory delays due to defects in the OCS, which could be expensive and time-consuming and result in substantial damages payable by us and increases in our insurance rates.

If our products are deemed to be defectively designed, manufactured or labeled, contain defective components, suffer security failures or are hacked, or are counterfeited, we could face substantial and costly litigation by transplant centers that purchase or use the OCS or by their patients or others claiming damages on their behalf. Moreover, transplantations are complex and inherently risky medical procedures. Many of the patients currently on a waiting list for a lung, heart or liver transplant already are very sick, with some of them receiving intensive care. All of these patients have a significant risk of death if they do not receive a transplant. Thus, we may incur substantial liability if the OCS fails to perform as expected and, as a result of this failure, patients do not receive the intended transplants or receive transplants that are not successful. Although death is an anticipated adverse event of the organ transplant population, if the rate of deaths or other serious adverse events using the OCS is greater than expected using conventional transplant procedures, transplant surgeons may cease using the OCS as often or at all, which could materially and adversely affect our business, financial condition, operating results, cash flows and prospects.

Because the OCS represents a novel approach to organ transplantation, a patient or transplant center may choose to name us as a party to a lawsuit relating to the use of the OCS in connection with a planned or completed transplant procedure regardless of whether the OCS caused or contributed to a serious adverse event or death of a patient. Any claim, whether or not we are ultimately successful, could divert management's attention from our core business, be expensive to defend and result in sizable damage awards against us.

Currently, we maintain global product liability insurance covering damages of up to \$10 million per occurrence for both the human clinical and commercial use of our product. We also maintain local insurance policies as required. Our current insurance coverage might not be sufficient to cover future claims and is subject to deductibles. Moreover, in the future, we may not be able to obtain insurance in amount or scope sufficient to provide us with adequate coverage against potential liabilities. Any product liability claims brought against us, with or without merit, could increase our product liability insurance rates or prevent us from securing continuing coverage, could harm our reputation in the industry, impair our current or future preclinical studies or clinical trials, hinder acceptance of our products in the market and reduce product sales. Furthermore, we would need to pay any product liability losses in excess of our insurance coverage or within the deductibles provided under our insurance policies applicable to the claim out of cash reserves, which could materially and adversely affect our business, financial condition, operating results, cash flows and prospects.

The FDA has warned that the threat of cyberattacks on medical devices is no longer theoretical. Hackers and other third parties may try to circumvent security controls on an OCS to gain access to information on the OCS, alter the way an OCS operates, to act as a trojan horse or other entry point to other systems that could lead to those systems suffering cybersecurity breaches or attacks, or to cause harms to transplanted organs or individuals. If our security controls fail to fully protect the OCS and the information on it, we could suffer reputational harm, could undergo regulatory investigations and enforcement, or could have claims brought against us.

Third parties may attempt to produce counterfeit versions of our products, which may harm our ability to sell the OCS and its components, negatively affect our reputation or harm patients and subject us to product liability.

Counterfeit medical devices are an increasing presence on the market. Third parties may seek to develop, manufacture, distribute and sell systems that we believe infringe our proprietary rights, which would compete against the OCS and impair our ability to sell the OCS in jurisdictions in which our proprietary rights are not upheld. In addition, counterfeit products may be promoted in a way that misleads consumers into believing they are affiliated with us. If a counterfeit version of the OCS were to appear on the market, we would expect to be obliged to verify all OCS products currently on the market, and possibly to withdraw all OCS products from the market while verifications are made. We also might be named in a lawsuit relating to any side effects or fatalities allegedly related to the use of a counterfeit OCS irrespective of whether the counterfeit device in fact contributed to such an adverse event or whether we were aware of the existence of the counterfeit device.

Improper marketing or promotion of our products or misuse or off-label use of the OCS may harm our reputation in the marketplace, result in injuries that lead to product liability suits or result in costly investigations, fines or sanctions by regulatory bodies if we are deemed to have engaged in the promotion of these uses, any of which could be costly to our business.

Our OCS products have been approved for marketing in the United States, European Union and other jurisdictions for specific indications, and our promotional materials and training methods must comply with regulatory requirements in the countries where they are sold. We train our commercial team to not promote the OCS for uses outside of the approved indications for use/intended purpose, known as “off-label uses.” We cannot, however, prevent a surgeon from using the OCS off-label, when in the surgeon’s independent professional medical judgment he or she deems it appropriate. There may be increased risk of injury to patients if surgeons attempt to use the OCS off-label. Furthermore, the use of the OCS for indications other than those approved by the FDA/ by any foreign regulatory body or for which they are CE marked may not effectively treat such conditions, which could harm our reputation in the marketplace among surgeons and patients.

If the FDA or any foreign regulatory body determines that our promotional materials or training constitute promotion of an off-label use, or that the materials or training are false or misleading, it could request that we modify our training or promotional materials or subject us to regulatory or enforcement actions, including the issuance or imposition of a warning letter, an untitled letter (which is used for violations that do not necessitate a warning letter), injunction, seizure, civil fine or criminal penalties. In the EU the MDR expressly prohibits misleading claims in the form of off-label promotion and the MDR grants enforcement powers to national competent authorities. It is also possible that other federal, state or foreign enforcement authorities might take action under other regulatory authority, such as false claims laws or consumer protection laws, 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.

In addition, surgeons may misuse the OCS or use improper techniques if they are not adequately trained, potentially leading to unsatisfactory patient outcomes, patient injuries, negative publicity and an increased risk of product liability. If the OCS is misused or used with improper technique, we may become subject to costly litigation by our customers or their patients. Similarly, in an effort to decrease costs, surgeons may also reuse the component and accessories of the OCS that are intended for a single use or may purchase reprocessed OCS components from third-party reproducers in lieu of purchasing new components from us, which could result in product failure and liability. As described above, product liability claims could divert management’s attention from our core business, be expensive to defend and result in sizeable damage awards against us that may not be covered by insurance.

Legislative or regulatory reforms in the United States or other jurisdictions may make it more difficult and costly for us to obtain regulatory clearances or approvals for our products or to manufacture, market or distribute our products after clearance or approval is obtained.

From time to time, legislation is drafted and introduced in the U.S. Congress that could significantly change the statutory provisions governing the regulation of medical devices. In addition, FDA regulations and guidance may be revised or reinterpreted by the FDA in ways that may significantly affect our business and our products. Any new statutes, regulations or revisions or reinterpretations of existing regulations may impose additional costs or lengthen review times of any future products or make it more difficult to obtain approval for, manufacture, market or distribute our products. We cannot determine what effect changes in regulations, statutes, legal interpretation or policies, when and if promulgated, enacted or adopted may have on our business in the future. Such changes could, among other things, require additional testing prior to obtaining clearance or approval; changes to manufacturing methods; recall, replacement or discontinuance of our products; or additional record keeping.

In the EU, Regulation (EU) 2017/745, or the MDR, repealed and replaced the Medical Devices Directive (93/42/EEC) with effect from May, 26 2021. Although the MDR now applies so all new devices placed on the market must be CE marked under it, under the transition period granted by the MDR, certificates issued by notified bodies for medical devices under the Medical Devices Directive before May 26, 2021 potentially remain valid (subject to certain Conditions) and the devices may continue to be placed on the EU market potentially until the end of December 2027 or 2028 (depending on the class of device) and provided the manufacturer satisfies certain requirements, including that there are no significant changes in the design and intended purpose of these devices. Post-Brexit the MDR applies in Northern Ireland in accordance with the Northern Ireland Protocol but does not apply in Great Britain (England, Wales and Scotland). The UK Medicines and Healthcare products Regulatory Agency (MHRA) has provided a transitional period under which the UK will recognize EU CE marks until June 30, 2030 (subject to certain conditions). To be placed on the market in Great Britain after this date, medical devices must have undergone a conformity assessment in accordance with UK legislation and have the UKCA mark affixed.

All of our products that were previously certified under the Medical Devices Directive, including OCS Heart, OCS Liver and OCS Lung systems, which includes the OCS Console, the OCS disposables, and the OCS solution additives, have now been recertified under the MDR. We received the CE Mark for the OCS Liver combined with our solution additives under the MDR in May 2023, with an effective date of April 2023.

We also recognize that our products may need to be certified and have a UKCA mark affixed to be placed on the market in Great Britain in the future. However, although neither the EU MDR nor EU IVDR apply in Great Britain, the national UK medical devices rules currently allow manufacturers to place devices CE marked under the EU MDR or EU IVDR (including their relevant transition periods) on the market in Great Britain, potentially up until June 30, 2030, provided certain conditions are met. The UK Government is expected to publish updated UK medical devices legislation in 2025. This might lead to substantial changes in the regulatory framework/requirements imposed on medical devices. We will need to continue to monitor the developments in the UK to assess how they impact our devices sold in Great Britain

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. Additionally, any challenge to or investigation into our practices under these laws could cause adverse publicity and be costly.

There are numerous U.S. federal and state, as well as foreign, laws pertaining to healthcare fraud and abuse, including anti-kickback, false claims and physician transparency laws. Our business practices and relationships with providers are subject to scrutiny under these laws. We may also be subject to privacy and security regulation related to patient, customer, employee and other third-party information by both the federal government and the states and foreign jurisdictions in which we conduct our business. The healthcare laws and regulations that may affect our ability to operate include, but are not limited to:

- the federal Anti-Kickback Statute, which prohibits, among other things, persons and entities from knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, in cash or in kind, to induce either the referral of an individual or furnishing or arranging for a good or service, for which payment may be made, in whole or in part, under federal healthcare programs, such as Medicare and 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 U.S. government has interpreted this law broadly to apply to the marketing and sales activities of manufacturers. Moreover, the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the federal civil False Claims Act. Violations of the federal Anti-Kickback Statute may result in substantial civil monetary and criminal penalties. Similarly, violations can result in exclusion from participation in government healthcare programs, including Medicare and Medicaid;
- the federal civil and criminal false claims laws and civil monetary penalties laws, including the federal civil False Claims Act, which prohibit, among other things, individuals or entities from knowingly presenting, or causing to be presented, claims for payment from Medicare, Medicaid or other federal healthcare programs that are false or fraudulent. These laws can apply to manufacturers who provide information on coverage, coding, and reimbursement of their products to persons who bill private payors. Private individuals can bring False Claims Act “qui tam” actions, on behalf of the government and such individuals, commonly known as “whistleblowers,” may share in amounts paid by the entity to the government in fines or settlement. When an entity is determined to have violated the federal civil False Claims Act, the government may impose substantial civil fines and penalties, and exclude the entity from participation in Medicare, Medicaid and other federal healthcare programs;
- the federal Civil Monetary Penalties Law, which prohibits, among other things, offering or transferring remuneration to a federal healthcare beneficiary that a person knows or should know is likely to influence the beneficiary’s decision to order or receive items or services reimbursable by the government from a particular provider or supplier;
- HIPAA, which created additional federal criminal statutes that prohibit, among other things, executing a scheme to defraud any healthcare benefit program and making false statements relating to healthcare matters. Similar to the federal Anti-Kickback Statute, 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 federal Physician Sunshine Act under the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, collectively referred to as the Affordable Care Act, which require certain applicable manufacturers of drugs, devices, biologics 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 and other transfers of value to physicians and teaching hospitals. Applicable manufacturers are required to submit annual reports to CMS. Failure to submit required information may result in substantial civil monetary penalties;
- many countries in which we operate have laws with extra-territorial effect-those laws apply to our operations outside the relevant country, to the extent they are breached. Examples of such laws include: the FCPA, Bribery Act and the GDPR. The extra-territorial effect of those laws affects our sales and marketing strategy, since in many countries healthcare professionals are officers of the state. This is particularly important in the context of bribery offences, which in the UK and in the United States include the offence of bribing a foreign public official. Failure by our sales staff to comply with those laws may result in criminal and civil penalties and damage our reputation; and
- analogous state and foreign law equivalents of each of the above federal laws, such as anti-kickback and false claims laws which may apply to items or services reimbursed by any private payor, including commercial insurers or patients; state laws that require device companies to comply with the industry’s voluntary compliance guidelines and the applicable compliance guidance promulgated by the federal government or otherwise restrict payments that may be made to healthcare providers and other potential referral sources; state laws that require device manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers or marketing expenditures; consumer protection and unfair competition laws, which broadly regulate marketplace activities and activities that potentially harm customers, foreign and state laws, including the GDPR, governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and may not have the same effect, thus complicating compliance efforts; and state laws related to insurance fraud in the case of claims involving private insurers.

These laws and regulations, among other things, constrain our business, marketing and other promotional activities by limiting the kinds of financial arrangements, including sales programs, we may have with customers, physicians or other potential purchasers of our products. In particular, these laws will influence, among other things, how we structure our sales offerings, including discount and rebate practices, customer support, education and training programs, and physician consulting and other service arrangements. Due to the breadth of these laws, the narrowness of statutory exceptions and regulatory safe harbors available, and the range of interpretations to which they are subject, it is possible that some of our current or future practices might be challenged under one or more of these laws.

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. For example, the member states of the European Union closely monitor perceived unlawful marketing activity by companies, including inducement to prescribe and the encouragement of off-label use of devices. 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 have an adverse effect on our business. Even an unsuccessful challenge or investigation into our practices could cause adverse publicity and be costly to respond to. If our operations are found to be in violation of any of the healthcare laws or regulations described above or any other healthcare regulations that apply to us, we may be subject to penalties, including administrative, civil and criminal penalties, damages, fines, exclusion from participation in government healthcare programs, such as Medicare and Medicaid, imprisonment, contractual damages, reputational harm, disgorgement and the curtailment or restructuring of our operations. Moreover, industry associations closely monitor the activities of their member companies. If these organizations or national authorities were to name us as having breached our obligations under their laws, regulations, rules or standards, our reputation would suffer and our business, financial condition, operating results, cash flows and prospects could be adversely affected.

Failure to comply with anti-bribery, anti-corruption, and anti-money laundering laws, including the FCPA, as well as export control laws, customs laws, sanctions laws and other laws governing our operations could result in civil or criminal penalties, other remedial measures and legal expenses.

As we grow our international presence, we are 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 U.S. 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 FCPA and other federal statutes and regulations, including those established by the Office of Foreign Assets Control, or OFAC. In addition, the Bribery Act prohibits both domestic and international bribery, as well as bribery across both private and public sectors. The substantive offences of offering or receiving a bribe will be committed by an individual where either the bribery takes place in the U.K, or the person paying or receiving the bribe has a close connection with the UK. An organization which is either incorporated in or carries on part of its business in the U.K will be liable under the Bribery Act if a person associated with the organization (being persons performing services for it) pays a bribe anywhere in the world intending to obtain or retain business for the organization. This is a strict liability offense with the only defenses available being that the organization implemented “adequate procedures” to prevent bribery or it was reasonable for it to not have such procedures in place. 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. Due to sales of our products to government or government-affiliated entities, we may be exposed to heightened risk of potential violations of the FCPA, the Bribery Act, or other relevant law.

We have implemented 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 be certain, 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 provide assurance 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 have a material adverse effect on our business, financial condition and results of operations.

We are subject to, and may in the future become subject to additional, U.S., state and foreign laws and regulations imposing obligations on how we collect, store, process or share information concerning individuals. Our actual or perceived failure to comply with such obligations could harm our business. Complying with such laws could also impair our efforts to maintain and expand our customer base, and thereby decrease our revenue.

In the conduct of our business, we may at times collect, process or share data concerning individuals, including health-related personal data. The U.S. federal government and various states have adopted or proposed laws, regulations, guidelines and rules for the collection, distribution, use and storage of personal information of individuals. We may also be subject to U.S. federal rules, regulations and guidance concerning cybersecurity for medical devices, including guidance from the FDA. State privacy and cybersecurity laws vary and, in some cases, can impose more restrictive requirements than U.S. federal law. For example, the CCPA affords California residents expanded privacy rights and protections, including civil penalties for violations and statutory damages under a private right of action for data security breaches. These protections were expanded by CPRA and more than a dozen states now have similar laws. Where state laws are more protective, we must comply with the stricter provisions. In addition to fines and penalties that may be imposed for failure to comply with state law, some states also provide for private rights of action to individuals for misuse of personal information. Our ongoing efforts to comply with evolving laws and regulations may be costly and require ongoing modifications to our policies, procedures and systems. Failure to comply with laws regarding data protection would expose us to risk of enforcement actions and penalties under such laws. Even if we are not determined to have violated applicable data laws, government investigations into these issues can be expensive and lengthy and generate adverse publicity, which could harm our business, financial condition, results of operations or prospects.

The EEA and the UK, as well as other international jurisdictions, also have laws and regulations dealing with the collection, use and processing of personal data concerning individuals who are located there. Those laws are often more restrictive than those in the United States. For example, we are subject to the requirements of the GDPR, which imposes more stringent administrative requirements for controllers and processors of personal data, including, for example, shortened timelines for data breach notifications, limitations on retention of information, increased requirements pertaining to health data and pseudonymized (i.e., key-coded) data, additional obligations when we contract with service providers, and more robust rights for individuals over their personal data. The GDPR provides that EU member states may make their own further laws and regulations, including laws and regulations limiting the processing of genetic, biometric or health data, which could limit our ability to use and share personal data or cause our costs to increase, and harm our business and financial condition. If we do not comply with our obligations under the GDPR, we could be exposed to enforcement activity from EU regulators, including substantial fines and litigation. In addition, EU law restricts transfers of personal data to the United States unless certain requirements are met. The legislative and regulatory landscape for privacy and data protection continues to evolve, and there has been an increasing focus on privacy and data protection issues with the potential to affect our business. For example, in July 2020, the Court of Justice of the European Union invalidated the U.S.-EU Privacy Shield Framework, which has led to increased scrutiny of data transfers from the EEA and the UK to the United States generally and may increase our costs of compliance with data privacy legislation. We rely on a mixture of mechanisms to transfer personal data from our European business to the United States. We are also subject to the laws of each EU member state implementing any EU directive applicable to our processing activities, including Directing 2002/58/EC.

We are subject to the requirements of the UK Data Protection Law as amended and superseded from time to time. UK Data Protection Law means: (i) the GDPR as it forms part of UK law by virtue of section 3 of the European Union (Withdrawal) Act 2018; (ii) the Data Protection Act 2018; (iii) the Privacy and Electronic Communications (EC Directive) Regulations 2003 as they continue to have effect by virtue of section 2 of the European Union (Withdrawal) Act 2018; and (iv) any other laws in the field of data protection in force in the UK from time to time applicable (in whole or in part) to us.

Any actual or perceived failure by us or the third parties with whom we work to comply with data privacy or security laws, policies, legal obligations or industry standards, or any security incident that results in the unauthorized release or transfer of information concerning individuals, may result in governmental enforcement actions and investigations, including by European data protection authorities and U.S. federal and state regulatory authorities, fines and penalties, litigation and/or adverse publicity, including by consumer advocacy groups, and could cause our customers, their patients and other healthcare professionals to lose trust in us, which could harm our reputation and have a material adverse effect on our business, financial condition and results of operations.

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

We operate in a highly regulated industry. The U.S. and state governments continue to propose and pass legislation or take administrative action that may affect the availability and cost of healthcare. Healthcare reform initiatives could harm our business, financial condition and results of operations.

In the United States, there have been and continue to be a number of legislative initiatives to contain healthcare costs and improve access to transplantation. There have been and will likely continue to be ongoing healthcare reform efforts. These reform efforts have and may continue to focus on coverage and payment for organ procurement and transplant. For example, the Centers for Medicare & Medicaid Services issued regulations in 2020 and 2021 that revised Medicare conditions of participation for organ procurement organizations as well as organ acquisition payment policies for organ procurement organizations, transplant centers and donor hospitals. In addition, in 2023, the Securing the U.S. Organ Procurement and Transplantation Network act was signed into law, which allows HRSA to make changes to the Organ Procurement and Transplantation Network (OPTN), including requiring an independent board, awarding contracts to both non-profit and for-profit entities, and eliminating the cap on funding.

We expect additional state and federal healthcare policies and reform measures to be adopted in the future, any of which could limit coverage or reimbursement for healthcare products and services or otherwise result in reduced demand for the OCS or additional pricing pressure and have a material adverse effect on our industry generally and on our customers. Any changes of, or uncertainty with respect to, coverage or reimbursement of services provided by organ procurement organizations, transplant centers or hospitals could affect demand for the OCS, which in turn could have a material adverse effect on our business, financial condition and results of operations.

In addition, other broader legislative changes have been adopted that could have an adverse effect upon, and could prevent, our products' commercial success. The Budget Control Act of 2011, as amended, or the Budget Control Act, includes provisions intended to reduce the federal deficit, including reductions in Medicare payments to providers through 2030 (except May 1, 2020 to March 31, 2022). Any significant spending reductions affecting Medicare, Medicaid, or other publicly funded or subsidized health programs, or any significant taxes or fees imposed as part of any broader deficit reduction effort or legislative replacement to the Budget Control Act, or otherwise, could have an adverse impact on our anticipated product revenue.

Our business activities involve the use of hazardous materials, which require compliance with environmental and occupational safety laws regulating the use of such materials. If we violate these laws, we could be subject to significant fines, liabilities or other adverse consequences.

Our research and development programs involve the controlled use of hazardous materials. Accordingly, we are subject to international, federal, state and local laws governing the use, handling and disposal of these materials. Although we believe that our safety procedures for handling and disposing of these materials comply in all material respects with applicable regulations, we cannot eliminate the risk of accidental contamination or injury from these materials. In the event of an accident or failure to comply with environmental laws, we could be held liable for damages that result, and any such liability could exceed our assets and resources. Our general liability and umbrella insurance policies provide for coverage up to annual aggregate limits of \$2 million per occurrence but exclude coverage for liabilities relating to the release of pollutants. The insurance that we currently hold may not be adequate to cover all liabilities relating to accidental contamination or injury due to pollution conditions or other extraordinary or unanticipated events. Furthermore, an accident could damage or force us to shut down our operations.

Risks Related to Our Common Stock and General Risks

The market price of our common stock has been and may continue to be volatile and could subject us to securities class action litigation.

During the year ended December 31, 2023, the price per share of our common stock has ranged from as low as \$36.42 to as high as \$99.63. Some of the factors that may cause the market price of our common stock to fluctuate include:

- price and volume fluctuations in the overall stock market;
- volatility in the market price and trading volume of comparable companies;
- actual or anticipated changes in our earnings or fluctuations in our operating results or in the expectations of securities analysts;
- results of post-approval studies or clinical trials relating to next generation products for the OCS or competing products;
- failure or discontinuation of any of our product development and research programs;
- regulatory or legal developments in the United States and other countries, including changes in the healthcare payment systems;
- results or changes in the status of, or developments relating to, applications for regulatory approvals or clearances for the OCS or competing products;
- our announcements or our competitors' announcements of new products, procedures or therapies;
- departure of key personnel;
- litigation involving us or that may be perceived as having an adverse effect on our business;
- developments or disputes concerning patent applications, issued patents or other proprietary rights;
- market conditions in the medical device and biotechnology sectors;

- changes in general economic, industry and market conditions and trends;
- investors' general perception of us; and
- sales of large blocks of our stock.

The market for medical device and biotechnology companies, in particular, has experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to changes in the operating performance of the companies whose stock is experiencing those price and volume fluctuations. Because of the potential volatility of our stock price, we may become the target of securities litigation in the future. Securities litigation could result in substantial costs and divert management's attention and resources from our business.

If securities or industry analysts issue an adverse or misleading opinion regarding our business or do not publish research or publish unfavorable research about our business, our stock price and trading volume could decline.

The trading market for our common stock is influenced by the research and reports that industry or securities analysts publish about us or our business. If one or more of these analysts ceases coverage of our company or fails to publish reports on us regularly, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline. Moreover, if any of the analysts who cover us issue an adverse or misleading opinion regarding us, our business model or our stock performance, or if our operating results fail to meet the expectations of the investor community, one or more of the analysts who cover our company may change their recommendations regarding our company, and our stock price could decline.

We have adopted anti-takeover provisions in our restated articles of organization and amended and restated bylaws and are subject to provisions of Massachusetts law that may frustrate any attempt to remove or replace our current board of directors or to effect a change of control or other business combination involving our company.

Our restated articles of organization and amended and restated bylaws and certain provisions of Massachusetts law may discourage certain types of transactions involving an actual or potential change of control of our company that might be beneficial to us or our security holders. For example, our amended and restated bylaws grant the chairperson presiding over any meetings of shareholders the right to adjourn such meeting. Our board of directors also may issue shares of any class or series of preferred stock in the future without shareholder approval and upon such terms as our board of directors may determine. The rights of the holders of our common stock will be subject to, and may be harmed by, the rights of the holders of any class or series of preferred stock that may be issued in the future. Massachusetts state law also prohibits us from engaging in specified business combinations unless the combination is approved or consummated in a prescribed manner. These provisions, alone or together, could delay hostile takeovers and changes in control of our company or changes in our management.

Our restated articles of organization designate the Business Litigation Session of the Superior Court of Suffolk County, Massachusetts (or, if and only if the Business Litigation Session of the Superior Court of Suffolk County, Massachusetts lacks jurisdiction, another state or federal court located within the Commonwealth of Massachusetts) as the sole and exclusive forum for certain types of actions and proceedings that may be initiated by our shareholders, which could discourage lawsuits against us and our directors and officers.

Our restated articles of organization designate the Business Litigation Session of the Superior Court of Suffolk County, Massachusetts (or, if and only if the Business Litigation Session of the Superior Court of Suffolk County, Massachusetts lacks jurisdiction, another state or federal court located within the Commonwealth of Massachusetts) as the sole and exclusive forum for any action under Massachusetts statutory or common law: brought derivatively on our behalf, asserting a claim of breach of a fiduciary duty owed by any of our directors, officers or other employees to us or our shareholders, asserting a claim arising pursuant to any provision of the Massachusetts Business Corporation Act or asserting a claim governed by the internal affairs doctrine, in all cases subject to the court's having personal jurisdiction over the indispensable parties named as defendants. In addition, our restated articles of organization provide that any person or entity purchasing or otherwise acquiring any interest in shares of our common stock is deemed to have notice of and consented to the foregoing provisions. This provision will not apply to actions arising under the Exchange Act, or the Securities Act of 1933, as amended, or the Securities Act. Additionally, this exclusive forum provision may limit the ability of our shareholders to bring a claim in a judicial forum that such shareholders find favorable for disputes with us or our directors or officers, which may discourage such lawsuits against us and our directors and officers. Alternatively, if the Business Litigation Session of the Superior Court of Suffolk County, Massachusetts or a court outside of Massachusetts were to find this exclusive forum provision inapplicable to, or unenforceable in respect of, one or more of the specified types of actions or proceedings described above, we may incur additional costs associated with resolving such matters in other venues or jurisdictions, which could materially and adversely affect our business, financial condition, operating results, cash flows and prospects.

If we fail to maintain effective internal control over financial reporting and effective disclosure controls and procedures, we may not be able to accurately report our financial results in a timely manner or prevent fraud, which may adversely affect investor confidence in our company.

Pursuant to Section 404 of the Sarbanes-Oxley Act of 2002, as amended, our management is required to report on, and our independent registered public accounting firm is required to attest to, the effectiveness of our internal control over financial reporting. This assessment includes disclosure of any material weakness identified by our management in our internal control over financial reporting. In addition, we are required to comply with the SEC's rules implementing Section 302 of the Sarbanes-Oxley Act, which requires management to certify financial and other information in our quarterly and annual reports, and we are required to disclose significant changes made in our internal controls and procedures on a quarterly basis.

If we identify a material weakness in our internal control over financial reporting, we may not be able to remediate the material weakness identified in a timely manner or maintain all of the controls necessary to remain in compliance with our reporting obligations. If we identify any material weaknesses in our internal controls over financial reporting or we are unable to comply with the requirements of Section 404 in a timely manner or assert that our internal controls over financial reporting are effective, or if our independent registered public accounting firm is unable to express an unqualified opinion as to the effectiveness of our internal control over financial reporting in future periods, investors may lose confidence in the accuracy and completeness of our financial reports. As a result, the market price of our common stock could be materially adversely affected.

Changes in accounting standards and subjective assumptions, estimates and judgments by management related to complex accounting matters could significantly affect our financial condition and results of operations.

Accounting principles and related pronouncements, implementation guidelines and interpretations we apply to a wide range of matters that are relevant to our business, including, but not limited to, revenue recognition, leases and stock-based compensation, are complex and involve subjective assumptions, estimates and judgments by our management. Changes in accounting pronouncements or their interpretation or changes in underlying assumptions, estimates or judgments by our management could significantly change our reported or expected financial performance.

Item 1B. Unresolved Staff Comments.

None.

Item 1C. Cybersecurity.

We have adopted processes designed to identify, assess and manage material risks from cybersecurity threats to our information systems. Those processes include response to and an assessment of internal and external threats to the security, confidentiality, integrity and availability of our data and systems along with other material risks to our operations, at least annually or whenever there are material changes to our systems or operations. These processes include plans to be used in the event of a cybersecurity incident, including incident reporting and business continuity. As part of our risk management process, we engage outside providers to conduct periodic internal and external penetration testing. We store our data in cloud environments with security appropriate to the data involved and have adopted controls around, among other things, vendor risk assessment, access and acceptable use and backup and recovery. Although we have experienced cybersecurity incidents in the past, cybersecurity threats, including as a result of previous cybersecurity incidents, have not materially affected the Company, including its business strategy, results of operations or financial condition.

Our executive team, along with our Audit Committee, considers cybersecurity risk as part of our overall business strategy, financial planning and capital allocation. Our Audit Committee and Board of Directors engage with members of the executive team and are briefed on cybersecurity risks at least once each calendar year and with respect to any potentially material cybersecurity incidents. Our Chief Information Officer reports regularly, and at least annually, to our Audit Committee and such report may address overall assessment of our compliance with our cybersecurity policies, and include topics such as risk assessment, risk management and control decisions, service provider arrangements, test results, security incidents and responses, and recommendations for changes and updates to policies and procedures. Our Chief Information Officer has served in various senior information technology roles, responsible for information security for over 20 years.

Item 2. Properties.

Our corporate headquarters and manufacturing and clinical training facilities are located in Andover, Massachusetts, where we lease 135,199 square feet of space, including a 10,500 square foot laboratory and training facility and a 7,900 square foot class 10,000 cleanroom facility. The leases for these facilities expire on December 31, 2027 with an option to extend the term beyond the expiration date for one additional period of five years. We also lease office space at various locations in the United States for our NOP and hangar space for our aircraft, all under short-term leases. We are constructing a commercial aircraft hangar at Bozeman Yellowstone International Airport in Bozeman, Montana, which we will use for our flight school aircraft and office space for personnel located in Bozeman.

We believe that our current facilities are adequate to meet our current needs, although we may seek to negotiate new leases or evaluate additional or alternate space for our operations. We believe appropriate alternative space would be readily available on commercially reasonable terms.

Item 3. Legal Proceedings.

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

Item 4. Mine Safety Disclosures.

Not applicable.

PART II

Item 5. Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.

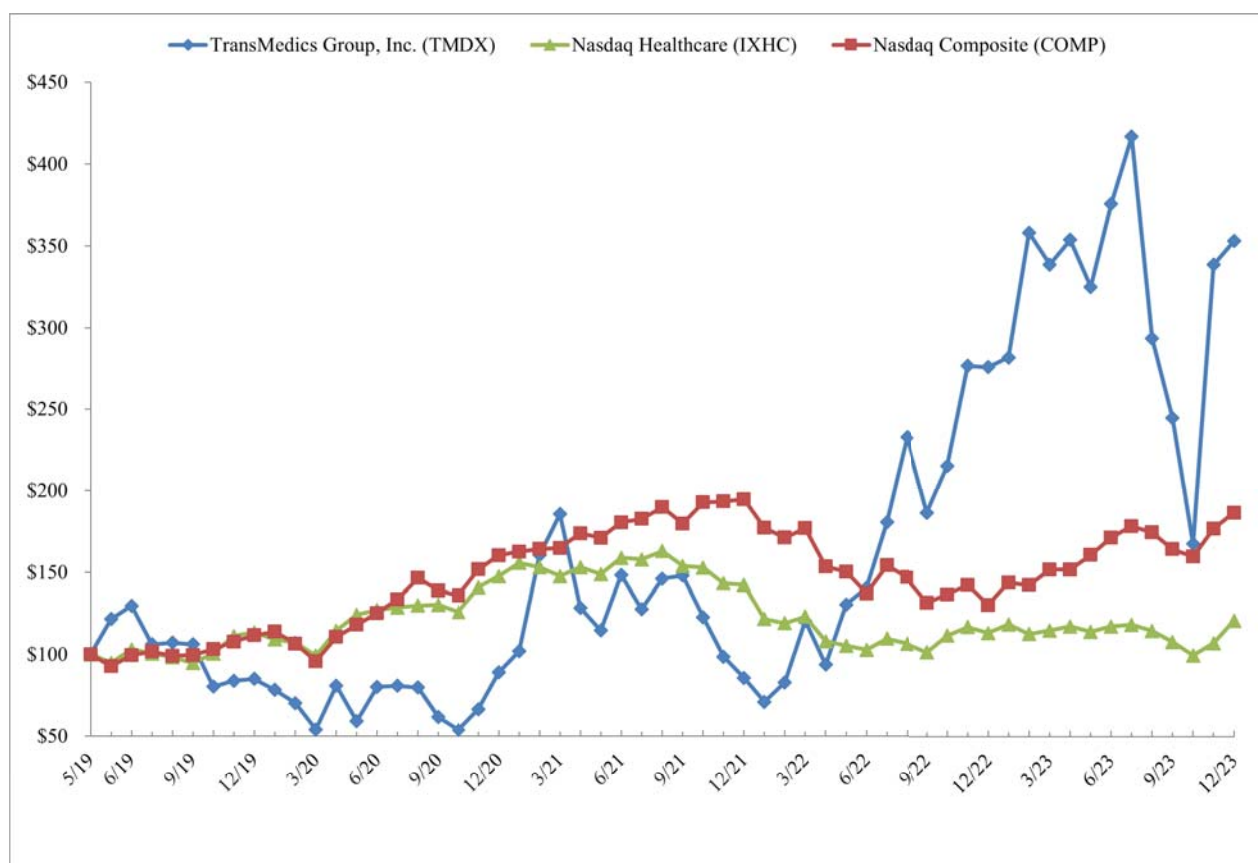
Certain Information Regarding the Trading of Our Common Stock

Our common stock trades under the symbol “TMDX” on the Nasdaq Global Market and has been publicly traded since May 2, 2019. Prior to this time, there was no public market for our common stock.

Stock Performance Graph⁽¹⁾

The following graph shows a comparison from May 2, 2019 (the first date on which shares of our common stock were publicly traded) through December 31, 2023 of cumulative total return on assumed investments of \$100.00 in cash in each of our common stock, the NASDAQ Composite Index and the NASDAQ Healthcare Index. Such returns are based on historical results and are not intended to suggest future performance. Data for the NASDAQ Composite Index and the NASDAQ Healthcare Index assumed reinvestment of dividends.

**COMPARISON OF 56 MONTH CUMULATIVE TOTAL RETURN
Among TransMedics Group, Inc., the NASDAQ Composite Index and the NASDAQ Healthcare Index**



⁽¹⁾ This performance graph shall not be deemed to be "soliciting material" or to be "filed" with the SEC for purposes of Section 18 of the Securities and Exchange Act of 1934, as amended, or otherwise subject to the liabilities under that Section, and shall not be deemed incorporated by reference into any filings of TransMedics Group, Inc. under the Securities Act of 1933, as amended.

Holders of Our Common Stock

As of January 31, 2024, there were approximately 26 holders of record of shares of our common stock. These amounts do not include stockholders for whom shares are held in “nominee” or “street” name.

Securities authorized for issuance under equity compensation plans

Information about our equity compensation plans will be included in our definitive proxy statement to be filed with the SEC with respect to our 2024 Annual Meeting of Stockholders and is incorporated herein by reference.

Recent Sales of Unregistered Equity Securities

None.

Issuer Purchases of Equity Securities

We did not purchase any of our registered equity securities during the period from September 30, 2023 to December 31, 2023.

Dividends

We have never declared or paid any dividends on our capital stock. We do not anticipate declaring or paying any cash dividends on our capital stock in the foreseeable future. Any future determination to declare and pay cash dividends, if any, will be made at the discretion of our board of directors and will depend on a variety of factors, including applicable laws, our financial condition, results of operations, contractual restrictions, capital requirements, business prospects, general business or financial market conditions and other factors our board of directors may deem relevant. In addition, our CIBC Credit Agreement contains covenants that restrict our ability to pay cash dividends.

Item 6.

Reserved

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our consolidated financial statements and related notes appearing elsewhere in this Annual Report on Form 10-K. Some of the information contained in this discussion and analysis or set forth elsewhere in this Annual Report on Form 10-K, including information with respect to our plans and strategy for our business, includes forward-looking statements that involve risks and uncertainties. As a result of many factors, including those factors set forth in the "Item 1A. Risk Factors" section of this Annual Report on Form 10-K, our actual results could differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis.

Overview

We are a commercial-stage medical technology company transforming organ transplant therapy for end-stage organ failure patients across multiple disease states. We developed the OCS to replace a decades-old standard of care that we believe is significantly limiting access to life-saving transplant therapy for hundreds of thousands of patients worldwide. Our innovative OCS technology replicates many aspects of the organ's natural living and functioning environment outside of the human body. As such, the OCS represents a paradigm shift that transforms organ preservation for transplantation from a static state to a dynamic environment that enables new capabilities, including organ optimization and assessment. We have also developed our NOP, an innovative turnkey solution to provide outsourced organ retrieval, OCS organ management and logistics services, to provide transplant programs in the United States with a more efficient process to procure donor organs with the OCS. In 2023, we enhanced our NOP offering with the addition of a logistics team to expand our transportation logistics capabilities. Our logistics services include aviation transportation, ground transportation, and other coordination activity. We believe the use of the OCS combined with the NOP has the potential to significantly increase the number of organ transplants and improve post-transplant outcomes.

We designed the OCS to be a platform that allows us to leverage core technologies across products for multiple organs. To date, we have developed three OCS products, one for each of heart, lung and liver transplantations, making the OCS the only FDA approved, portable, multi-organ, warm perfusion technology platform. All three of our products, OCS Heart, OCS Lung and OCS Liver, have received PMA from the FDA, for both DBD organs and DCD organs.

Since our inception, we have focused substantially all of our resources on designing, developing and building our proprietary OCS technology platform and organ-specific OCS products; obtaining clinical evidence for the safety and effectiveness of our OCS products through clinical trials; securing regulatory approval; organizing and staffing our company; planning our business; raising capital; commercializing our products; developing and growing our NOP; developing and expanding our market and distribution chain and providing general and administrative support for these operations. To date, we have funded our operations primarily with proceeds from borrowings under loan agreements, proceeds from the sale of common stock in our public offerings, and revenue from clinical trials and commercial sales of our OCS products and NOP services.

Since our inception, we have incurred significant operating losses. Our ability to generate revenue sufficient to achieve sustained profitability will depend on the continued growth in customer utilization of our products and services. We generated total revenue of \$241.6 million and incurred a net loss of \$25.0 million for the year ended December 31, 2023. As of December 31, 2023, we had an accumulated deficit of \$503.7 million. We expect our operating and capital expenditures will continue to increase as we focus on growing commercial sales of our products in both the United States and select non-U.S. markets, including growing our commercial team, which will pursue increasing commercial sales of our OCS products; growing our NOP, including by maintaining and growing our logistics capabilities, including aviation transportation, to support our NOP to reduce dependence on third party transportation, including by means of the acquisition of fixed-wing aircraft or other acquisitions, joint ventures or strategic investments; scaling our manufacturing and sterilization operations; developing the next generation OCS; continuing research, development and clinical trial efforts; seeking regulatory clearance for new products and product enhancements, including additional indications or other organs, in both the United States and select non-U.S. markets; and operating as a public company.

Because of the numerous risks and uncertainties associated with product development, commercialization and regulations of our industry, we are unable to accurately predict the timing or amount of increased expenses or when, or if, we will be able to achieve or maintain profitability on an annual basis. Until such time, if ever, as we can generate substantial revenue sufficient to achieve sustained profitability, we may finance our operations through a combination of equity offerings, debt financings and strategic alliances. We may be unable to raise additional funds or enter into such other agreements or arrangements when needed on favorable terms or at all. If we are unable to raise capital or enter into such agreements as, and when, needed, we may have to significantly delay, scale back or discontinue the further development and commercialization efforts of one or more of our products, or may be forced to reduce or terminate our operations. In March 2023, the U.S. Department of Health and Human Services' Health Resources and Services Administration, or HRSA, announced initiatives designed to improve the Organ Procurement and Transplantation network, or OPTN, including its intent to solicit contract proposals to manage the OPTN, which

is currently operated by the United Network for Organ Sharing, or UNOS, under a contract that expires in March 2024. Additionally, on July 25, 2023 and July 27, 2023, the U.S. House of Representatives and U.S. Senate, respectively, passed the Securing the U.S. Organ Procurement and Transplantation Network Act, which expressly authorizes HRSA to award multiple grants, contracts or cooperative agreements to support the operation of the OPTN and specifies that the OPTN shall be operated through awards that are distinct from awards made to support the organization tasked with supporting the networks' board of directors. The impact that the HRSA initiatives and the U.S. Organ Procurement and Transplantation Network Act may have on our business, including on our NOP, is uncertain at this time.

In May 2023, we issued and sold \$460.0 million in aggregate principal amount of our 1.50% Convertible Senior Notes due 2028, or the Notes, in a private placement to qualified institutional buyers pursuant to Rule 144A under the Securities Act. The Notes were issued pursuant to an indenture, dated May 11, 2023. The Notes bear interest at a rate of 1.50% per year, payable semi-annually in arrears on June 1 and December 1 of each year. The Notes will mature on June 1, 2028, unless earlier converted, redeemed or repurchased.

As of December 31, 2023, we had cash of \$394.8 million. We believe that our cash will be sufficient for us to fund our operating expenses, capital expenditure requirements and debt service payments for at least 12 months following the filing of our Annual Report on Form 10-K. We have based this estimate on assumptions that may prove to be wrong, and we could exhaust our available capital resources sooner than we expect. See “—Liquidity and Capital Resources”.

Strategic Transactions

On August 16, 2023, we acquired Summit Aviation, Inc. and Northside Property Group, LLC, or together Summit. Summit was a charter flight operator based in Bozeman, Montana. The acquisition enabled us to add aircraft transportation services to our NOP and become a comprehensive national provider of donor organ retrieval and delivery in the United States.

In separate transactions through December 31, 2023, we acquired 11 fixed-wing aircraft to transport donor organs as part of the services offered under our NOP. We have acquired two additional aircraft in 2024 and intend to acquire additional fixed-wing aircraft as we scale our fleet of aircraft to reduce our dependence on third party transportation providers.

On August 2, 2023, we acquired certain assets related to lung and heart perfusion technology from Bridge to Life Ltd. and its subsidiary Tevosol, Inc., or together BTL. We intend to further develop these technologies to expand our product offerings and indications for organ transplantation.

Economic Impacts

Inflation, changes in trade policies, and the imposition of duties and tariffs have and could continue to adversely impact the price or availability of raw materials, the components of our products as well as shipping and transportation costs. For example, the global economy has experienced extreme volatility and disruptions, including significant volatility in commodity, other material and labor costs, declines in consumer confidence, declines in economic growth, supply chain interruptions, uncertainty about economic stability and record inflation globally. Unfavorable economic conditions have and could continue to result in a variety of risks to our business, including impacts on demand and pricing for our products and pricing and availability of raw materials and components for our products, which could make it difficult to forecast our inventory needs and financial results.

Components of Our Results of Operations

Revenue

We generate net product revenue primarily from sales of our single-use, organ-specific disposable sets used on our organ-specific OCS Consoles. To a lesser extent, we also generate product revenue from the sale of OCS Consoles to customers and the implied rental of OCS Consoles loaned to customers at no charge. For each new transplant procedure, customers purchase an additional OCS disposable set for use on the customer's existing organ-specific OCS Console. We also generate service revenue by providing outsourced organ retrieval, OCS organ management and logistics services under our NOP in the United States. With the acquisition of Summit, the purchase of fixed-wing transplant aircraft and the addition of a logistics team, we anticipate increased service revenue from our aviation transportation service offering.

Prior to the acquisition, Summit derived its revenue primarily from charter flight services. To a lesser extent, Summit also derived revenue from providing flight school training, managing aircraft and other related services. As part of the Summit integration, we have transitioned Summit's charter flight customers and are finalizing the transition of aircraft management customers to third parties. Following this transition we do not anticipate generating revenue from charter flights or aircraft management and related services. We are continuing to offer flight school training services. During the year ended December 31, 2023, service revenue of \$4.9 million, including \$3.0 million of charter flight and aircraft management and related services and \$1.9 million of flight school training revenue, is from Summit's legacy operations and is unrelated to the NOP and organ transplant.

All of our OCS transplant-related revenue has been generated by sales to transplant centers and Organ Procurement Organizations, not-for-profit organizations responsible for recovering organs from deceased donors for transplantation, in the United States, Europe and Asia-Pacific, or, in some cases, to distributors selling to transplant centers in select countries. Substantially all of our customer contracts have multiple-performance obligations that contain promises consisting of OCS Perfusion Sets and OCS Solutions and may also contain promises for organ retrieval, OCS organ management or logistics services under our NOP, and an OCS Console, whether sold or loaned to the customer.

Through December 31, 2023, all of our sales outside of the United States have been commercial sales (unrelated to any clinical trials). Our sales in the EU are dependent on obtaining and maintaining the CE Mark certifications for each of our OCS products. As required by the MDR, we received recertification of the CE Mark in September 2022 for each of the OCS Heart and OCS Lung systems, which includes the OCS Console, the OCS disposables, and the OCS solution additives. We also received the recertification of the CE Mark in September 2022 for the OCS Liver Console and disposables. We received the CE Mark for the OCS Liver combined with our solution additives under the MDR in May 2023, with an effective date of April 2023. In addition, we received a Class II Medical Device License from Health Canada for our OCS Liver combined with our solution additives in October 2023 to complement our existing Health Canada licenses for OCS Heart and OCS Lung.

We expect that our revenue will increase over the long term as a result of the continued growth of the NOP in the United States. We also expect that our revenue will increase over the long term as a result of anticipated growth in non-U.S. sales if national healthcare systems begin to reimburse transplant centers for the use of the OCS, if transplant centers utilize the OCS in more transplant cases and if more transplant centers adopt the OCS in their programs.

Cost of Revenue, Gross Profit and Gross Margin

Cost of net product revenue consists of costs of components of our OCS Consoles and disposable sets, costs of direct materials, labor and the manufacturing overhead that directly supports production and depreciation of OCS Consoles. Included in the cost of OCS disposable sets are the costs of our OCS Lung, OCS Heart and OCS Liver Solutions. Cost of service revenue primarily consists of labor and overhead that directly support organ retrieval and OCS organ management services and transportation and logistics costs, including labor costs for pilots, aircraft depreciation, aircraft costs, fuel, crew travel, maintenance and third-party flight costs and ground transportation that support organ delivery. For the year ended December 31, 2023, cost of service revenue also included approximately \$4.4 million of costs related to charter flight and aircraft management and related services and flight school training revenue, from Summit's legacy operations, which is unrelated to the NOP and organ transplant.

Gross profit is the amount by which revenue exceeds cost of revenue in each reporting period and gross margin is gross profit divided by revenue. Our overall gross margin will be impacted by the relative mix of product and service revenue, as product and service revenue have different margin profiles, and we expect our overall gross margin will decrease as service revenue increases as a proportion of overall revenue. Product and service gross margins are also affected by a variety of factors, primarily production volumes, the cost of components and direct materials, manufacturing overhead costs, direct labor, the cost of services provided under the NOP and the selling price of our OCS products and NOP services.

We expect that overall cost of revenue will increase or decrease in absolute dollars primarily as, and to the extent that, our revenue increases or decreases. We expect that the cost of net product revenue as a percentage of net product revenue will moderately decrease and gross margin and gross profit will moderately increase over the long term as our sales and production volumes increase and our cost per unit of our OCS disposable sets decreases due to economies of scale, our product enhancements and improved manufacturing efficiency. We intend to use our design, engineering and manufacturing capabilities to further advance and improve the efficiency of our manufacturing processes, which we believe will reduce costs and increase our product gross margin. We also expect to see modest improvements in the future in our services gross margin as we provide more services and the efficiency in provisioning of these services improves due to scale and experience. While we expect our gross margins to increase over the long term, they will likely fluctuate from quarter to quarter.

Operating Expenses

Research, Development and Clinical Trials Expenses

Research, development and clinical trials expenses consist primarily of costs incurred for our research activities, product development, hardware and software engineering, clinical trials to continue to develop clinical evidence of our products' safety and effectiveness, regulatory expenses, testing, consultant services and other costs associated with our OCS technology platform and OCS products, which include:

- employee-related expenses, including salaries, related benefits and stock-based compensation expense for employees engaged in research, hardware and software development, regulatory and clinical trial functions, and recruiting and temporary service fees related to such personnel;
- expenses incurred in connection with the clinical trials of our products, including under agreements with third parties, such as consultants, contractors and data management organizations;
- the cost of maintaining and improving our product designs, including the testing of materials and parts used in our products;
- laboratory supplies and research materials; and
- facilities, depreciation and other expenses, which include direct and allocated expenses for rent and maintenance of facilities and insurance.

We expense research, development and clinical trials costs as incurred. In the future, we expect that research, development and clinical trials expenses will increase over the long term due to ongoing product development and approval efforts. We expect to continue to perform activities related to obtaining additional regulatory approvals for expanded indications in the United States and other served geographies, as well as developing the next generation of our OCS technology platform.

Acquired In-Process Research and Development Expenses

Acquired in-process research and development expenses, or IPR&D, consist of the acquisition value of transactions that do not qualify as a business combination and that do not have an alternative future use.

Selling, General and Administrative Expenses

Selling, general and administrative expenses consist primarily of salaries and related costs, including stock-based compensation, for personnel in our commercial team and personnel in executive, marketing, finance and administrative functions, and recruiting and temporary service fees for such personnel. Selling, general and administrative expenses also include direct and allocated facility-related costs, costs to facilitate the NOP, promotional activities, marketing, conferences and trade show costs as well as professional fees for legal, patent, consulting, investor and public relations, accounting and audit services and amortization of sales and marketing-related intangible assets. We expect to continue to increase headcount in our commercial team and increase marketing efforts as we continue to grow commercial sales of our OCS products in both U.S. and select non-U.S. markets.

We expect that our selling, general and administrative expenses will increase over the long term as we increase our headcount to support the expected continued sales growth of our OCS products and our NOP.

Other Income (Expense)

Interest Expense

Interest expense consists of interest expense associated with outstanding borrowings under our loan agreements as well as the amortization of debt discounts associated with such agreements. In July 2022, we entered into a credit agreement with Canadian Imperial Bank of Commerce, or CIBC, under which we borrowed \$60.0 million. At that time, we repaid the remaining \$35.0 million of principal that had been outstanding under our prior credit agreement with OrbiMed Royalty Opportunities II, LP, or OrbiMed. In May 2023, we issued and sold \$460.0 million in aggregate principal amount of our 1.50% Convertible Senior Notes due 2028.

Other Income (Expense), Net

Other income (expense), net includes interest income, realized and unrealized foreign currency transaction gains and losses and other non-operating income and expense items unrelated to our core operations. Interest income consists of interest earned on our invested cash balances. Foreign currency transaction gains and losses result from intercompany transactions as well as transactions with customers or vendors denominated in currencies other than the functional currency of the legal entity in which the transaction is recorded.

Results of Operations

Comparison of the Years Ended December 31, 2023, 2022 and 2021

The following table summarizes our results of operations for the Years Ended December 31, 2023, 2022 and 2021:

	Year Ended December 31,		
	2023	2022	2021
	(in thousands)		
Revenue:			
Net product revenue	\$ 176,069	\$ 79,234	\$ 29,657
Service revenue	65,554	14,225	605
Total revenue	241,623	93,459	30,262
Cost of revenue:			
Cost of net product revenue	41,015	16,970	9,031
Cost of service revenue	46,515	11,217	72
Total cost of revenue	87,530	28,187	9,103
Gross profit	154,093	65,272	21,159
Operating expenses:			
Research, development and clinical trials	36,055	26,812	22,304
Acquired in-process research and development expenses	27,212	—	—
Selling, general and administrative	119,553	69,897	38,283
Total operating expenses	182,820	96,709	60,587
Loss from operations	(28,727)	(31,437)	(39,428)
Other income (expense):			
Interest expense	(10,791)	(3,726)	(3,874)
Other income (expense), net	12,847	(1,002)	(877)
Total other income (expense), net	2,056	(4,728)	(4,751)
Loss before income taxes	(26,671)	(36,165)	(44,179)
(Provision) benefit for income taxes	1,643	(66)	(36)
Net loss	\$ (25,028)	\$ (36,231)	\$ (44,215)

Revenue

OCS transplant-related revenue consists of:

	Year Ended December 31,		Change
	2023	2022	
(in thousands)			
OCS Transplant Revenue by country by organ:			
United States			
Lung total revenue	\$ 10,548	\$ 7,967	\$ 2,581
Heart total revenue	59,080	29,902	29,178
Liver total revenue	151,719	46,169	105,550
Total United States OCS transplant revenue	<u>221,347</u>	<u>84,038</u>	<u>137,309</u>
All other countries			
Lung total revenue	1,272	880	392
Heart total revenue	14,012	8,451	5,561
Liver total revenue	104	90	14
Total all other countries OCS transplant revenue	<u>15,388</u>	<u>9,421</u>	<u>5,967</u>
Total OCS transplant revenue	<u>\$ 236,735</u>	<u>\$ 93,459</u>	<u>\$ 143,276</u>

We also had service revenue unrelated to OCS transplant of \$4.9 million, including \$3.0 million of charter flight and aircraft management and related services and \$1.9 million of flight school training revenue, from Summit's legacy operations for the year ended December 31, 2023.

Revenue from customers in the United States related to OCS transplant was \$221.3 million in the year ended December 31, 2023 and increased by \$137.3 million compared to the year ended December 31, 2022, primarily due to higher sales volumes of our OCS Liver and OCS Heart disposable sets. Revenue for each organ in the table above includes net product revenue from sales of disposable sets as well as service revenue for organ retrieval, OCS organ management and logistics services under the NOP in the United States. Establishing the NOP, which launched in late 2021, has allowed us to broaden our customer base and increase utilization of the OCS in organ transplantation. Significantly all of our customers in the United States now participate in the NOP. By adding logistics to our NOP offering, we have been able to further increase product and service revenue.

Revenue from customers outside the United States was \$15.4 million in the year ended December 31, 2023 and increased by \$6.0 million compared to the year ended December 31, 2022. Revenue outside of the United States increased for the year ended December 31, 2023 compared to the year ended December 31, 2022 due primarily to increased sales volume of OCS Heart disposable sets.

Cost of Revenue, Gross Profit and Gross Margin

Cost of net product revenue increased by \$24.0 million in the year ended December 31, 2023 compared to the year ended December 31, 2022. Cost of service revenue increased by \$35.3 million in the year ended December 31, 2023 compared to the year ended December 31, 2022 as we expanded and increased utilization of the NOP. Gross profit increased by \$88.8 million in the year ended December 31, 2023 compared to the year ended December 31, 2022. Cost of service revenue included approximately \$4.4 million of costs related to charter flight and aircraft management and related services and flight school training revenue, from Summit's legacy operations, which is unrelated to the NOP and organ transplant.

Overall gross margin was 64% and 70% for the years ended December 31, 2023 and 2022, respectively. The decrease in gross margin from 2022 to 2023 was driven primarily by an increase in service revenue, which has a lower gross margin than product revenue. Gross margin from net product revenue was 77% and 79% for the years ended December 31, 2023 and 2022, respectively. The decrease in gross margin was primarily a result of increasing manufacturing capacity and increased costs of certain parts. Gross margin from service revenue was 29% and 21% for the years ended December 31, 2023 and 2022, respectively, and consisted primarily of organ retrieval, OCS organ management and logistics services under our NOP. Service revenue gross margin during the year ended December 31, 2023, included the introduction of transportation and logistics services and the purchase and integration of Summit in the third quarter of 2023. Service revenue gross margin during the year ended December 31, 2022 included our initial launch of the NOP program and did not include a full period of our NOP service offering.

Operating Expenses

Research, Development and Clinical Trials Expenses

	Year Ended December 31,		Change
	2023	2022	
	(in thousands)		
Personnel related (including stock-based compensation expense)	\$ 15,489	\$ 9,818	\$ 5,671
Laboratory supplies and research materials	7,939	5,404	2,535
Consulting and third-party services	5,788	5,277	511
Clinical trials costs	1,077	1,778	(701)
Facility related and other	5,762	4,535	1,227
Total research, development and clinical trials expenses	<u>\$ 36,055</u>	<u>\$ 26,812</u>	<u>\$ 9,243</u>

Total research, development and clinical trials expenses increased by \$9.2 million from \$26.8 million in the year ended December 31, 2022 to \$36.1 million in the year ended December 31, 2023. Personnel related costs increased by \$5.7 million primarily due to increased headcount to support development efforts for our next generation OCS program and overall compensation increases. Personnel related costs included stock-based compensation expense of \$2.8 million and \$1.5 million for the years ended December 31, 2023 and 2022, respectively. Laboratory supplies and research materials costs increased by \$2.5 million from the year ended December 31, 2022 to the year ended December 31, 2023 primarily due to our increased need for supplies and materials used for development of our next generation OCS. Facility related and other costs increased by \$1.2 million from the year ended December 31, 2022 to the year ended December 31, 2023 due primarily to the increased costs of supporting a larger group of research and development personnel and their development efforts. Clinical trial costs decreased by \$0.7 million due to the timing of pre-approval and post-approval clinical trials.

Acquired In-Process Research and Development Expenses

IPR&D in 2023 was related to the acquisition of certain assets related to lung and heart perfusion technology from BTL.

Selling, General and Administrative Expenses

	Year Ended December 31,		Change
	2023	2022	
	(in thousands)		
Personnel related (including stock-based compensation expense)	\$ 72,717	\$ 40,551	\$ 32,166
Professional and consultant fees	17,401	7,991	9,410
NOP Support	11,985	8,463	3,522
Tradeshows and conferences	4,575	4,788	(213)
Facility related and other	12,875	8,104	4,771
Total selling, general and administrative expenses	<u>\$ 119,553</u>	<u>\$ 69,897</u>	<u>\$ 49,656</u>

Total selling, general and administrative expenses increased by \$49.7 million from \$69.9 million in the year ended December 31, 2022 to \$119.6 million in the year ended December 31, 2023 due to increases in personnel related costs, professional and consultant fees, NOP support costs and facility related and other costs. Personnel related costs increased by \$32.2 million primarily due to the continued expansion of our team to support the growth in our business, as well as an increase in stock-based compensation expense of \$7.8 million, due primarily to additional grants to new and existing employees. Professional and consultant fees increased by \$9.4 million due primarily to increased consulting, legal and audit fees related to the business growth. Professional and consultant fees also included transaction costs related to our acquisitions of \$2.0 million. The increase in NOP support of \$3.5 million was due to the continued growth and expansion of our NOP, including our national command and dispatch center. Facility related and other costs increased by \$4.8 million due primarily to increased facilities costs and depreciation and amortization expense due to the growth in our business.

Other Income (Expense)

Interest Expense

Interest expense was \$10.8 million and \$3.7 million for the years ending December 31, 2023 and 2022, respectively. The increase was due primarily to interest expense for our \$460.0 million principal amount of the Notes, which were issued in May 2023. Interest expense also increased due to an increase in the principal amount of the CIBC loan outstanding compared to the principal that had been outstanding under our prior credit agreement with OrbiMed, partially offset by the lower average interest rate for our indebtedness under the CIBC Credit Agreement.

Other Income (Expense), Net

Other income (expense), net for the years ended December 31, 2023 and 2022 included interest income of \$12.5 million and \$0.9 million, respectively, from interest earned on invested cash balances, due to higher invested cash balance and to a lesser extent higher interest rates. Other income (expense), net included \$0.3 million of realized and unrealized foreign currency transactions gains during the year ended December 31, 2023. Other income (expense), net included \$1.3 million of realized and unrealized foreign currency transactions losses during the year ended December 31, 2022. Other expense, net for the year ending December 31, 2022 also included a loss on extinguishment of debt of \$0.6 million.

(Provision) Benefit for Income Taxes

We recorded a tax benefit of \$1.7 million for the year ended December 31, 2023 for the release of a portion of our valuation allowance related to the net deferred tax liabilities recorded in purchase accounting. As part of the allocation of the purchase price of Summit, we recorded deferred tax liabilities for the differences between the fair value recognized in purchase accounting and the tax basis of property, plant and equipment and intangible assets. The net deferred tax liability is a source of income to support the recognition of a portion of our existing deferred tax assets. Therefore, we released the same amount of our valuation allowance. We maintain a valuation allowance on our overall net deferred tax asset as we deem it more likely than not that the net deferred tax asset will not be realized.

Comparison of the Years Ended December 31, 2022 and 2021

For a discussion of our results of operations for the year ended December 31, 2022 as compared to the year ended December 31, 2021, see Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations—Components of Our Results of Operations—Comparison of the Years Ended December 31, 2022 and 2021 included in our Annual Report on Form 10-K for the year ended December 31, 2022.

Liquidity and Capital Resources

Since our inception, we have incurred significant annual operating losses. To date, we have funded our operations primarily with proceeds from borrowings under loan agreements, proceeds from the issuance of our convertible senior notes, proceeds from the sale of common stock in our public offerings and revenue from clinical trials and commercial sales of our OCS products and NOP services. On May 11, 2023, we issued \$460.0 million aggregate principal amount of the Notes, in a private placement to qualified institutional buyers pursuant to Rule 144A under the Securities Act. The total net proceeds from the sale of the Notes, after deducting debt issuance costs of \$14.6 million, and purchases of capped calls of \$52.1 million, were \$393.3 million. At December 31, 2023, our principal source of liquidity was cash of \$394.8 million.

Cash Flows

The following table summarizes our sources and uses of cash for each of the periods presented:

	Year Ended December 31,		
	2023	2022	2021
	(in thousands)		
Net cash used in operating activities	\$ (13,028)	\$ (45,817)	\$ (28,864)
Net cash provided by (used in) investing activities	(193,953)	54,513	29,267
Net cash provided by financing activities	400,418	167,927	1,393
Effect of exchange rate changes on cash, cash equivalents and restricted cash	193	(1,021)	(797)
Net increase in cash, cash equivalents and restricted cash	<u>\$ 193,630</u>	<u>\$ 175,602</u>	<u>\$ 999</u>

Operating Activities

During the year ended December 31, 2023, operating activities used \$13.0 million of cash, primarily resulting from our net loss of \$25.0 million and net cash used by changes in our operating assets and liabilities of \$44.3 million, partially offset by net non-cash charges of \$56.3 million, which included an IPR&D charge of \$27.2 million. Net cash used by changes in our operating assets and liabilities for the year ended December 31, 2023 consisted primarily of an increase in accounts receivable of \$33.8 million, an increase in inventory of \$28.1 million and an increase in prepaid expenses and other current assets of \$2.1 million, partially offset by an increase in accounts payable and accrued expenses and other current liabilities of \$21.2 million.

During the year ended December 31, 2022, operating activities used \$45.8 million of cash, primarily resulting from our net loss of \$36.2 million and net cash used by changes in our operating assets and liabilities of \$26.8 million, partially offset by net non-cash charges of \$17.2 million. Net cash used by changes in our operating assets and liabilities for the year ended December 31, 2022 consisted primarily of an increase in accounts receivable of \$21.7 million and an increase in inventory of \$8.0 million, partially offset by a decrease in prepaid expenses of \$2.5 million.

Changes in accounts receivable, inventory, prepaid expenses and other current assets, accounts payable, and accrued expenses and other current liabilities in each reporting period are generally due to growth in our business and timing of invoices and payments.

Investing Activities

During the year ended December 31, 2023, net cash used in investing activities of \$194.0 million consisted of purchases of property, plant and equipment of \$151.8 million, including \$141.9 million of transplant-related aircraft purchases, the purchase of IPR&D assets from BTL for \$27.2 million and the purchase of Summit for \$14.9 million, net of cash received.

During the year ended December 31, 2022, net cash provided by investing activities of \$54.5 million consisted of proceeds from sales and maturities of marketable securities of \$76.9 million, partially offset by \$10.5 million in purchases of marketable securities and \$11.9 million in purchases of property and equipment.

Financing Activities

During the year ended December 31, 2023, net cash provided by financing activities of \$400.4 million consisted of net proceeds from the issuance of our Notes of \$445.4 million, partially offset by payments of \$52.1 million for associated capped calls, proceeds from the issuance of common stock upon exercise of stock options of \$6.2 million and proceeds from the issuance of common stock in connection with the 2019 Employee Stock Purchase Plan of \$1.0 million.

During the year ended December 31, 2022, net cash provided by financing activities of \$167.9 million consisted of net proceeds from our public offering in August 2022 of \$139.9 million, net proceeds from the issuance of long-term debt of \$58.5 million, proceeds from the issuance of common stock upon exercise of stock options of \$4.7 million, proceeds from the issuance of common stock in connection with the 2019 Employee Stock Purchase Plan of \$0.5 million and proceeds from the issuance of common stock upon exercise of warrants of \$0.4 million, partially offset by the repayments of long-term debt of \$36.1 million.

For a discussion of our cash flows for the year ended December 31, 2021, see Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources—Cash Flows included in our Annual Report on Form 10-K for the year ended December 31, 2022.

Convertible Senior Notes

On May 11, 2023, we issued \$460.0 million aggregate principal amount of the Notes, in a private placement to qualified institutional buyers pursuant to Rule 144A under the Securities Act, pursuant to an indenture dated May 11, 2023, by and between us and U.S. Bank Trust Company, National Association, or the Indenture.

The initial conversion price of the Notes is approximately \$94.00 per share of common stock, which represents a premium of approximately 32.5% over the closing price of our common stock on May 8, 2023. The Notes will mature on June 1, 2028, unless earlier repurchased, redeemed or converted. We used \$52.1 million of the proceeds from the sale of the Notes to fund the cost of entering into capped call transactions, described below. The proceeds from the issuance of the Notes were approximately \$393.3 million, net of capped call transaction costs of \$52.1 million and initial purchaser discounts and other debt issuance costs totaling \$14.6 million. The Notes bear interest at a rate of 1.50% per year and interest is payable semiannually in arrears on June 1 and December 1 of each year. The initial conversion rate is 10.6388 shares of common stock per \$1,000 principal amount of the Notes, which represents an initial conversion price of approximately \$94.00 per share of common stock. The conversion rate and conversion price are subject to customary adjustments upon the occurrence of certain events as described in the Indenture.

Before March 1, 2028, noteholders have the right to convert their Notes only upon the occurrence of certain events, including certain corporate events, and during the five business days immediately after any ten consecutive trading days in which the trading price per \$1,000 principal amount of Notes is less than ninety eight percent (98%) of the as converted value. Additionally, the noteholder can convert their Notes during any calendar quarter (and only during such calendar quarter), commencing after the calendar quarter ending on September 30, 2023 but before March 1, 2028, provided the last reported sale price of the common stock for at least 20 trading days is greater than or equal to 130% of the conversion price during the 30 consecutive trading days ending on the last trading day of a calendar quarter. From and after March 1, 2028, noteholders may convert their Notes at any time at their election until the close of business on the second scheduled trading day immediately before the maturity date. We have the right to elect to settle conversions either in cash, shares or in a combination of cash and shares of our common stock.

Prior to June 8, 2026, the Notes will not be redeemable. On or after June 8, 2026, we may redeem for cash all or any portion of the Notes (subject to the partial redemption limitation set forth in the Indenture), at our option, if the last reported sale price of our common stock has been at least 130% of the conversion price then in effect for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading day period (including the last trading day of such period) ending on, and including, the trading day immediately preceding the date on which we provide notice of redemption. In addition, calling any Note for redemption will constitute a “Make-Whole Fundamental Change” (as defined in the Indenture) with respect to that Note, in which case the conversion rate applicable to the conversion of that Note will be increased in certain circumstances if it is converted after it is called for redemption.

Long-Term Debt

In July 2022, we entered into a credit agreement with CIBC as amended by the First Amendment to Credit Agreement, dated as of May 8, 2023, by and among the Company and CIBC, or the First Amendment, the Second Amendment to Credit Agreement, dated as of June 23, 2023, by and among the Company and CIBC, or the Second Amendment, and the Third Amendment to Credit Agreement, dated as of November 9, 2023, by and among the Company and CIBC, or the Third Amendment, pursuant to which we borrowed \$60.0 million, referred to herein as the CIBC Credit Agreement. We used proceeds of the CIBC Credit Agreement to repay all amounts due under our previously outstanding credit agreement with OrbiMed, which was entered into in June 2018.

On May 8, 2023, we entered into the First Amendment, which among other items, allowed for the issuance of the Notes and capped call transactions. On June 23, 2023, we entered into the Second Amendment, which among other items, permits us to make acquisitions of equity or assets of another entity, subject to the conditions under the Second Amendment, including acquisitions, without further consent of CIBC, up to a maximum amount of \$50.0 million for the cash payable in connection with an individual acquisition and a maximum amount in aggregate of \$150.0 million for the total cash consideration payable for all acquisitions made by us on or after June 23, 2023. The definition of consolidated adjusted EBITDA was also amended by the Second Amendment to add a provision for the pro forma effect of any acquisitions that occur during the period. Additionally, pursuant to the Second Amendment, we and CIBC agreed to extend the start of the principal repayment period to July 31, 2026, on which date we are obligated to begin repayment of the term loans in equal monthly installments until the maturity date in July 2027. On November 9, 2023, we entered into the Third Amendment, which, among other items, permits us to make acquisitions of equity or assets of another entity, subject to the conditions under the Third Amendment, without further consent of CIBC, for cash consideration in a maximum aggregate amount of \$300.0 million for all such acquisitions made by the Company on or after November 9, 2023.

Borrowings under the CIBC Credit Agreement bear interest at an annual rate equal to either, at our option, (i) the secured overnight financing rate for an interest period selected by us, subject to a minimum of 1.50%, plus 2.0% or (ii) 1.0% plus the higher of a) the prime rate, subject to a minimum of 4.0% or b) the Federal Funds Effective Rate, plus 0.5%. At our option, we may prepay borrowings outstanding under the CIBC Credit Agreement, subject to a prepayment fee of 2.0% of outstanding borrowings if paid prior to 12 months after the closing date, and 1.0% if paid after 12 months but prior to 24 months after the closing date. All obligations under the CIBC Credit Agreement are guaranteed by us and each of our material subsidiaries.

All obligations of us and each guarantor are secured by substantially all of our and each guarantor's assets, including their intellectual property, subject to certain exceptions. Under the CIBC Credit Agreement, we have agreed to customary representations and warranties, events of default and certain affirmative and negative covenants to which we will remain subject until maturity. The financial covenants include, among other covenants, (x) a requirement to maintain a minimum liquidity amount of the greater of either (i) the consolidated adjusted EBITDA loss (or gain) for the trailing four month period (only if EBITDA is negative) and (ii) \$10.0 million, and (y) a requirement to maintain total net revenue of at least 75% of the level set forth in the total revenue plan presented to CIBC. As discussed above, the definition of consolidated adjusted EBITDA was amended to include the pro forma effect of acquisitions. The obligations under the CIBC Credit Agreement are subject to acceleration upon the occurrence of specified events of default, including payment default, change in control, bankruptcy, insolvency, certain defaults under other material debt, certain events with respect to governmental approvals (if such events could cause a material adverse change in our business), failure to comply with certain covenants and a material adverse change in our business, operations or financial condition. As of December 31, 2023, we were in compliance with all covenants of the CIBC Credit Agreement. During the continuance of an event of default, the interest rate per annum will be equal to the rate that would have otherwise been applicable at the time of the event of default plus 2.0%. If an event of default (other than certain events of bankruptcy or insolvency) occurs and is continuing, CIBC may declare all or any portion of the outstanding principal amount of the borrowings plus accrued and unpaid interest to be due and payable. Upon the occurrence of certain events of bankruptcy or insolvency, all of the outstanding principal amount of the borrowings plus accrued and unpaid interest will automatically become due and payable. In addition, we may be required to prepay outstanding borrowings, subject to certain exceptions, with portions of net cash proceeds of certain asset sales and certain casualty and condemnation events.

Funding Requirements

As we continue to pursue and increase commercial sales of our OCS products, we expect our costs and expenses to increase in the future, particularly as we expand our commercial team, grow our NOP, scale our manufacturing and sterilization operations, continue research, development and clinical trial efforts, seek regulatory approval for new products and product enhancements, including new indications, both in the United States and in select non-U.S. markets, and seek greater control of air and ground transport for our NOP. For example, if the demand for our products exceeds our existing manufacturing and sterilization capacity, our ability to fulfill orders would be limited until we have sufficiently expanded such operations. In addition, following the closing of our IPO, we have incurred and expect to continue to incur additional costs associated with operating as a public company. The timing and amount of our operating and capital expenditures will depend on many factors, including:

- the amount of product revenue generated by sales of our OCS Consoles, OCS disposable sets and other products that may be approved in the United States and select non-U.S. markets, revenue generated by our services, and growth of the NOP;
- the costs and expenses of expanding our U.S. and non-U.S. sales and marketing infrastructure and our manufacturing operations;

- the extent to which our OCS products are adopted by the transplant community;
- the ability of our customers to obtain adequate reimbursement from third-party payors for procedures performed using the OCS products;
- the degree of success we experience in commercializing our OCS products for additional indications;
- the costs, timing and outcomes of post-approval studies or any future clinical studies and regulatory reviews, including to seek and obtain approvals for new indications for our OCS products;
- the emergence of competing or complementary technologies or procedures;
- the number and types of future products we develop and commercialize;
- the cost of development of the next generation OCS;
- the costs associated with building our commercial operations, including the NOP;
- the costs associated with maintaining and growing our logistics capabilities, including by means of the acquisition of fixed-wing aircraft for our aviation transportation services or other acquisitions, joint ventures or strategic investments;
- the cost of maintaining, replacing or acquiring additional fixed-wing aircraft;
- the costs of preparing, filing and prosecuting patent applications and maintaining, enforcing and defending intellectual property-related claims; and
- the level of our selling, general and administrative expenses.

We believe that our existing cash will enable us to fund our operating expenses, capital expenditure requirements, and debt service payments for at least 12 months following the filing of our annual report on Form 10-K.

We may need to raise additional funding, which might not be available on favorable terms or at all. See “Item 1A. Risk Factors—Risks Related to Our Financial Position and Need for Additional Capital” in this Annual Report on Form 10-K.

Material Contractual Obligations

Our contractual obligations include amounts payable as principal and interest payments under the CIBC Credit Agreement. As of December 31, 2023, our outstanding principal balance was \$60.0 million and is due in 2027. We estimate we will pay \$4.5 million in interest payments during 2024. Our estimate of payments is based on an assumed rate of 7.3%, which was the interest rate in effect at December 31, 2023.

On May 11, 2023, we issued \$460.0 million aggregate principal amount of Notes due 2028. The Notes bear interest at a rate of 1.50% per year, payable semi-annually in arrears on June 1 and December 1 of each year. The Notes will mature on June 1, 2028, unless earlier converted, redeemed or repurchased.

We lease facilities under long-term non-cancelable operating leases that have a weighted average remaining lease term of 4.7 years as of December 31, 2023. As of December 31, 2023, we had fixed lease payment obligations of \$11.6 million, of which \$2.6 million is payable during 2024. We also lease facilities under short-term leases, for which we expect to pay approximately \$0.8 million in 2024 under existing leases.

In connection with our acquisition of Summit we acquired a construction contract for the completion of a commercial aircraft hangar at Bozeman Yellowstone International Airport in Bozeman, Montana. We anticipate we will incur approximately \$3.0 million to \$4.0 million in 2024 to complete construction of the hangar.

We intend to acquire additional fixed-wing aircraft as we scale our fleet of aircraft. During the year ended December 31, 2023, we acquired 11 transplant-related fixed-wing aircraft with an aggregate purchase price of \$141.9 million and we plan to acquire additional aircraft in 2024, including two aircraft purchased in January and February 2024.

In January 2021, we entered into an unconditional \$9.5 million purchase commitment in the ordinary course of business, for goods with specified annual minimum quantities to be purchased through December 2029. The contract is not cancellable without penalty. As of December 31, 2023, our remaining purchase commitment is \$7.0 million.

We also enter into other contracts in the normal course of business with consulting firms, material suppliers and other third parties for clinical trials and testing and manufacturing services. These contracts do not contain minimum purchase commitments

and are cancelable by us upon prior written notice. Payments due upon cancellation consist only of payments for services provided or expenses incurred, including noncancelable obligations of our service providers, up to the date of cancellation. These payments are not included in the discussion above as the amount and timing of such payments are not known.

Critical Accounting Policies and Significant Judgments and Estimates

Our consolidated financial statements are prepared in accordance with generally accepted accounting principles in the United States. The preparation of our consolidated financial statements and related disclosures requires us to make estimates, assumptions and judgments that affect the reported amounts of assets, liabilities, revenue, costs and expenses, and related disclosures. We evaluate our estimates on an ongoing basis. Our actual results may differ from these estimates under different assumptions or conditions.

While our significant accounting policies are described in more detail in Note 2 to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K, we believe that the following accounting policies are those most critical to the judgments and estimates used in the preparation of our consolidated financial statements.

Revenue Recognition

We generate net product revenue primarily from sales of our single-use, organ-specific disposable sets used on our organ-specific OCS Consoles. To a lesser extent, we also generate revenue from the sale of OCS Consoles to customers and the implied rental of OCS Consoles loaned to customers at no charge. For each new transplant procedure, customers purchase an additional OCS disposable set for use on the customer's existing organ-specific OCS Console. We also generate service revenue by providing outsourced organ retrieval, OCS organ management and logistics services under our NOP in the United States.

We recognize revenue from sales to customers applying the following five steps: (1) identification of the contract, or contracts, with a customer, (2) identification of the performance obligations in the contract, (3) determination of the transaction price, (4) allocation of the transaction price to the performance obligations in the contract, and (5) recognition of revenue when, or as, performance obligations are satisfied.

Substantially all of our customer contracts have multiple-performance obligations that contain deliverables consisting of OCS Perfusion Sets and OCS Solutions. Customer contract deliverables may also include organ retrieval, OCS organ management and logistics services under our NOP or an OCS Console, whether sold or loaned to the customer. We evaluate each promise within a multiple-performance obligation arrangement to determine whether it represents a distinct performance obligation. The primary performance obligations in our customer arrangements from which we derive revenue are the OCS Perfusion Sets, the OCS Solutions, the OCS Console, organ retrieval services, OCS organ management services and organ transportation logistics.

When a customer order includes an OCS Console, we have determined that customer training and the equipment set-up of the OCS Console, each performed by us, are not distinct because they are not sold on a standalone basis and can only be performed by us in conjunction with a sale or loan of our OCS Console. In addition, we have determined that the OCS Console itself is not distinct because the customer cannot benefit from the OCS Console without the training and equipment set-up having been completed. As a result, when the order includes an OCS Console, we have concluded that training, OCS Console equipment set-up, and the OCS Console itself are highly interdependent and represent a single, combined performance obligation. We recognize revenue from the single, combined performance obligation only once the OCS Console has arrived at the customer site and the training and equipment set-up have been completed by us.

Customer orders may include the loan of an OCS Console as well as OCS disposable sets used in each transplant procedure. When we loan the OCS Console to the customer, we retain title to the console at all times and do not require minimum purchase commitments from the customer related to any OCS products. In such cases, we invoice the customer for OCS disposable sets based on customer orders received for each new transplant procedure and the prices set forth in the customer agreement. Over time, we typically recover the cost of the loaned OCS Console through the customer's continued purchasing and use of additional OCS disposable sets. For these reasons, we have determined that part of the arrangement consideration for the disposable set is an implied rental payment for use of the OCS Console. Therefore, we allocate the arrangement consideration between the lease deliverables (i.e., the OCS Console) and non-lease deliverables (i.e., the OCS disposable sets) based on the relative estimated standalone selling price of each distinct performance obligation. To date, the amounts allocated to lease deliverables have been insignificant.

Revenue from sales to customers of OCS Perfusion Sets, OCS Solutions and OCS Consoles is classified as net product revenue in the our consolidated statements of operations. Revenue from sales to customers of organ retrieval, OCS organ management services and organ transportation is classified as service revenue in our consolidated statements of operations.

Revenue is recognized when control is transferred to the customer in an amount that reflects the consideration we expect to be entitled to in exchange for the product or services. When a customer order includes disposable sets and organ retrieval, OCS organ management or logistics services, we have determined that the disposable sets and services constitute separate performance obligations and we recognize revenue as the disposable sets and services are each delivered to the customer.

Payments Made to Customers

Under some of our customer clinical trial agreements, we made payments to our customers for reimbursements of clinical trial materials and for specified clinical documentation related to their use of our OCS products. We also make payments to customers involved in post-approval studies for information related to the transplant procedures performed. We determine the appropriate accounting treatments for these payments depending on the nature of the payment and whether they are for distinct goods or services.

Other Revenue Considerations

We only include estimated variable amounts in the transaction price to the extent it is probable that a significant reversal of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is resolved. We do not assess whether promised goods or services are performance obligations if they are deemed immaterial in the context of the contract with the customer. Additionally, we do not assess whether a contract has a significant financing component if the expectation at contract inception is that the period between payment by the customer and the transfer of the promised goods or services to the customer will be one year or less. Revenue is reported net of taxes.

Valuation of Inventory

We value inventory at the lower of cost or net realizable value, with cost computed using the first-in, first-out method. We regularly review inventory quantities on-hand for excess and obsolete inventory and, when circumstances indicate, record charges to write down inventories to their estimated net realizable value, after evaluating historical sales, future demand, market conditions and expected product life cycles. Such charges are classified as cost of revenue in our consolidated statements of operations. Any write-down of inventory to net realizable value creates a new cost basis. The reserve for excess and obsolete inventory was \$0.8 million and \$0.3 million as of December 31, 2023 and 2022, respectively.

At the end of each reporting period, we assess whether losses should be accrued on long-term manufacturing purchase commitments in accordance with ASC 330, *Inventory*, which requires that losses that are expected to arise from firm, noncancelable and unhedged commitments for the future purchase of inventory, measured in the same way as inventory losses, should be recognized in the current period in the statements of operations unless they are deemed recoverable through firm sales contacts or when there are other circumstances that reasonably assure continuing sales without price decline. As of the end of each reporting period presented in our consolidated financial statements included elsewhere in this Annual Report on Form 10-K, we did not identify any potential losses arising from remaining future purchase commitments as compared to estimated future customer sales through the remainder of the term of the manufacturing purchase commitment and, as a result, did not recognize in a current period any loss provision for future-period remaining purchase commitments.

Business Combinations and Fair Value Estimates

In determining whether an acquisition should be accounted for as a business combination or asset acquisition, we first determine whether substantially all of the fair value of the gross assets acquired is concentrated in a single identifiable asset or a group of similar identifiable assets. If this is the case, the single identifiable asset or the group of similar assets is not deemed to be a business and the acquisition is accounted for as an asset acquisition. If this is not the case, we then further evaluate whether the acquisition includes, at a minimum, an input and a substantive process that together significantly contribute to the ability to create outputs. If so, we conclude that the acquisition is a business and account for it as a business combination.

Determining the fair value of assets acquired and liabilities assumed in a business combination is judgmental in nature and can involve the use of significant estimates and assumptions. Fair value and useful life determinations are based on, among other things, valuations that use information and assumptions provided by management, which consider management's best estimates of inputs and assumptions that a market participant would use. Actual results may vary from these estimates and may result in adjustments to goodwill and acquisition date fair values of assets and liabilities during a measurement period or upon a final

determination of asset and liability fair values, whichever comes first. Adjustments to fair values of assets and liabilities made after the end of the measurement period are recorded within operating results.

Recently Issued Accounting Pronouncements

A description of recently issued accounting pronouncements that may potentially impact our financial position, results of operations or cash flows is disclosed in Note 2 to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

We are exposed to changes in interest rates and foreign currency exchange rates because we finance certain operations through variable rate debt instruments and denominate our transactions in a variety of foreign currencies. Changes in these rates may have an impact on future cash flow and earnings. We manage these risks through normal operating and financing activities.

Foreign Currency Exchange Risk

Our foreign currency transaction exposure results primarily from intercompany transactions and transactions with customers or vendors denominated in currencies other than the functional currency of the legal entity in which the transaction is recorded by us. Assets and liabilities arising from such transactions are translated into the legal entity's functional currency using the period-end exchange rates. Foreign currency transaction gains (losses) are included in the consolidated statements of operations as a component of other income (expense). We recognized foreign currency transaction gains of \$0.3 million during the year ended December 31, 2023.

Foreign currency translation exposure results from the translation of the financial statements of our subsidiaries whose functional currency is not the U.S. dollar into U.S. dollars for consolidated reporting purposes. Assets and liabilities of these subsidiaries are translated into U.S. dollars using the period-end exchange rates, and income and expense items are translated into U.S. dollars using average exchange rates in effect during each period. The effects of these foreign currency translation adjustments are included in accumulated other comprehensive loss, a separate component of stockholders' equity on our consolidated balance sheets. We recorded a foreign currency translation gain of less than \$0.1 million during the year ended December 31, 2023.

For the year ended December 31, 2023, 5% of our revenue and 2% of our operating costs and expenses were generated by subsidiaries whose functional currency is not the U.S. dollar and therefore are subject to foreign currency exposure.

Currently, our largest foreign currency exposure is that with respect to the Euro. We believe that a 10% change in the exchange rate between the U.S. dollar and Euro would not materially impact our operating results or financial position. We have experienced and we will continue to experience fluctuations in our net loss as a result of revaluing our assets and liabilities that are not denominated in the functional currency of the entity that recorded the asset or liability. At this time, we do not hedge our foreign currency risk.

Interest Rate Sensitivity

In July 2022, we entered into our CIBC Credit Agreement with CIBC. Borrowings under the CIBC Credit Agreement bear interest at an annual rate equal to either, at our option, (i) the secured overnight financing rate for an interest period selected by us, subject to a minimum of 1.5%, plus 2.0% or (ii) 1.0% plus the higher of a) the prime rate, subject to a minimum of 4.0% or b) the Federal Funds Effective Rate, plus 0.5%. As of December 31, 2023 borrowings outstanding under the CIBC Credit Agreement totaled \$60.0 million and the interest rate applicable to such borrowings was 7.3%. An immediate 10% change in the Federal Funds Effective Rate would not have a material impact on our debt-related obligations, financial position or results of operations.

In May 2023, we issued the Notes with an aggregate principal amount of \$460.0 million. In connection with the issuance of the Notes, we entered into privately negotiated capped call transactions with certain counterparties. The capped calls are expected generally to offset the potential dilution to our common stock as a result of any conversion of the Notes. The Notes have a fixed annual interest rate of 1.50%. Accordingly, we do not have interest rate exposure on the Notes.

Item 8. Financial Statements and Supplementary Data.

**TRANSMEDICS GROUP, INC.
Index to Consolidated Financial Statements**

	Page
Report of Independent Registered Public Accounting Firm (PCAOB ID 238)	83
Consolidated Balance Sheets	85
Consolidated Statements of Operations	86
Consolidated Statements of Comprehensive Loss	87
Consolidated Statements of Stockholders' Equity	88
Consolidated Statements of Cash Flows	89
Notes to Consolidated Financial Statements	90

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of TransMedics Group, Inc.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of TransMedics Group, Inc. and its subsidiaries (the “Company”) as of December 31, 2023 and 2022, and the related consolidated statements of operations, of comprehensive loss, of stockholders’ equity and of cash flows for each of the three years in the period ended December 31, 2023, including the related notes (collectively referred to as the “consolidated financial statements”). We also have audited the Company's internal control over financial reporting as of December 31, 2023, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2023 and 2022, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2023 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2023, based on criteria established in Internal Control - Integrated Framework (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management’s Annual Report on Internal Control Over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company’s consolidated financial statements and on the Company's internal control over financial reporting 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 audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements 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. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

As described in Management’s Annual Report on Internal Control over Financial Reporting, management has excluded Summit Aviation, Inc. from its assessment of internal control over financial reporting as of December 31, 2023 because it was acquired by the Company in a purchase business combination during 2023. We have also excluded Summit Aviation, Inc. from our audit of internal control over financial reporting. Summit Aviation, Inc. is a wholly-owned subsidiary whose total assets and total revenues excluded from management’s assessment and our audit of internal control over financial reporting represent 2% and 2%, respectively, of the related consolidated financial statement amounts as of and for the year ended December 31, 2023.

Definition and Limitations of Internal Control over Financial Reporting

A company’s internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company’s internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and

dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matters

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that (i) relates to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Revenue Recognition

As described in Note 2 to the consolidated financial statements, the Company recorded \$241.6 million in total revenues for the year ended December 31, 2023. The Company generates product revenue, from sales of its single-use, organ-specific disposable sets (i.e., its organ-specific OCS Perfusion Sets sold together with its organ-specific OCS Solutions) used on its organ-specific OCS Consoles, each being a component of the Company's Organ Care System (OCS) products, and service revenue, by providing outsourced organ retrieval, OCS organ management and logistics services under the Company's National OCS Program. Substantially all of the Company's customer contracts have multiple-performance obligations. Deliverables consist of OCS Perfusion Sets and OCS Solutions. In some of those customer contracts, the deliverables also include an OCS Console, whether sold or loaned to the customer. Management evaluates each promise within a multiple-performance obligation arrangement to determine whether it represents a distinct performance obligation. Management has concluded that training, OCS Console equipment set-up, and the OCS Console itself are highly interdependent and represent a single, combined performance obligation. Revenue is recognized when control of the OCS product or products is transferred to the customer in an amount that reflects the consideration the Company expects to be entitled to in exchange for the product or products. Control is transferred for the OCS products typically only after the product has arrived at the customer site and, in addition for OCS Consoles, the training and equipment set-up have been completed by the Company. Additionally, under the National OCS program, service deliverables available to customers include organ retrieval, OCS organ management, and transportation logistics which are distinct performance obligations and are recognized as service revenue when the services occur.

The principal considerations for our determination that performing procedures relating to revenue recognition is a critical audit matter are the high degree of auditor effort in performing procedures and in evaluating audit evidence related to management's determination of the point in time when control of the OCS product or products is transferred to the customer or services are performed and revenue is recognized.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to the revenue recognition process, including controls over the existence and point in time when control is transferred to the customer. These procedures also included, among others, evaluating, for a sample of transactions, the existence of transactions recognized as revenue, as well as evaluating the appropriate timing of revenue recognition by obtaining and inspecting customer purchase orders and, where applicable, invoices, customer agreements, shipping documents, completion of services documents and cash receipts from customers.

/s/ PricewaterhouseCoopers LLP
Boston, Massachusetts
February 27, 2024

We have served as the Company's auditor since 2001.

TRANSMEDICS GROUP, INC.
CONSOLIDATED BALANCE SHEETS
(In thousands, except share amounts)

	December 31,	
	2023	2022
Assets		
Current assets:		
Cash	\$ 394,812	\$ 201,182
Accounts receivable	63,576	27,611
Inventory	44,235	20,605
Prepaid expenses and other current assets	8,031	2,896
Total current assets	510,654	252,294
Property, plant and equipment, net	173,941	19,223
Operating lease right-of-use assets	6,546	5,130
Restricted cash	500	500
Goodwill	11,990	—
Acquired intangible assets, net	2,354	—
Other non-current assets	62	—
Total assets	<u>\$ 706,047</u>	<u>\$ 277,147</u>
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	\$ 12,717	\$ 3,341
Accrued expenses and other current liabilities	38,221	18,635
Deferred revenue	1,961	241
Operating lease liabilities	2,035	1,444
Total current liabilities	54,934	23,661
Convertible senior notes, net	447,140	—
Long-term debt, net	59,064	58,696
Operating lease liabilities, net of current portion	7,707	7,415
Total liabilities	568,845	89,772
Commitments and contingencies (Note 13)		
Stockholders' equity:		
Preferred stock, no par value; 25,000,000 shares authorized; no shares issued or outstanding	—	—
Common stock, no par value; 150,000,000 shares authorized; 32,670,803 shares and 32,141,368 shares issued and outstanding at December 31, 2023 and December 31, 2022, respectively	641,106	666,277
Accumulated other comprehensive loss	(199)	(225)
Accumulated deficit	(503,705)	(478,677)
Total stockholders' equity	137,202	187,375
Total liabilities and stockholders' equity	<u>\$ 706,047</u>	<u>\$ 277,147</u>

The accompanying notes are an integral part of these consolidated financial statements.

TRANSMEDICS GROUP, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except share and per share amounts)

	Year Ended December 31,		
	2023	2022	2021
Revenue:			
Net product revenue	\$ 176,069	\$ 79,234	\$ 29,657
Service revenue	65,554	14,225	605
Total revenue	241,623	93,459	30,262
Cost of revenue:			
Cost of net product revenue	41,015	16,970	9,031
Cost of service revenue	46,515	11,217	72
Total cost of revenue	87,530	28,187	9,103
Gross profit	154,093	65,272	21,159
Operating expenses:			
Research, development and clinical trials	36,055	26,812	22,304
Acquired in-process research and development expenses	27,212	—	—
Selling, general and administrative	119,553	69,897	38,283
Total operating expenses	182,820	96,709	60,587
Loss from operations	(28,727)	(31,437)	(39,428)
Other income (expense):			
Interest expense	(10,791)	(3,726)	(3,874)
Other income (expense), net	12,847	(1,002)	(877)
Total other income (expense), net	2,056	(4,728)	(4,751)
Loss before income taxes	(26,671)	(36,165)	(44,179)
(Provision) benefit for income taxes	1,643	(66)	(36)
Net loss	\$ (25,028)	\$ (36,231)	\$ (44,215)
Net loss per share attributable to common stockholders, basic and diluted	\$ (0.77)	\$ (1.23)	\$ (1.60)
Weighted average common shares outstanding, basic and diluted	32,517,372	29,556,633	27,616,839

The accompanying notes are an integral part of these consolidated financial statements.

TRANSMEDICS GROUP, INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(In thousands)

	Year Ended December 31,		
	2023	2022	2021
Net loss	\$ (25,028)	\$ (36,231)	\$ (44,215)
Other comprehensive income (loss):			
Foreign currency translation adjustment	26	(73)	(46)
Unrealized gains (losses) on marketable securities, net of tax of \$0	—	36	(47)
Total other comprehensive income (loss)	26	(37)	(93)
Comprehensive loss	<u>\$ (25,002)</u>	<u>\$ (36,268)</u>	<u>\$ (44,308)</u>

The accompanying notes are an integral part of these consolidated financial statements.

TRANSMEDICS GROUP, INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(In thousands, except share amounts)

	Common Stock		Accumulated Other Comprehen- sive Loss	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount			
Balances at December 31, 2020	27,175,305	\$ 502,217	\$ (95)	\$ (398,231)	\$ 103,891
Issuance of common stock upon the exercise of common stock options	588,461	974	—	—	974
Issuance of common stock in connection with employee stock purchase plan	27,849	419	—	—	419
Stock-based compensation expense	—	6,878	—	—	6,878
Foreign currency translation adjustment	—	—	(46)	—	(46)
Unrealized losses on marketable securities	—	—	(47)	—	(47)
Net loss	—	—	—	(44,215)	(44,215)
Balances at December 31, 2021	27,791,615	510,488	(188)	(442,446)	67,854
Issuance of common stock in public offering, net of discounts and issuance costs of \$676	3,737,500	139,854	—	—	139,854
Issuance of common stock upon the exercise of common stock options	507,795	4,667	—	—	4,667
Issuance of common stock in connection with employee stock purchase plan	30,143	509	—	—	509
Issuance of restricted common stock	26,093	—	—	—	—
Restricted common stock forfeitures	(1,778)	—	—	—	—
Issuance of common stock in connection with exercise of warrants	50,000	438	—	—	438
Stock-based compensation expense	—	10,321	—	—	10,321
Foreign currency translation adjustment	—	—	(73)	—	(73)
Unrealized gains on marketable securities	—	—	36	—	36
Net loss	—	—	—	(36,231)	(36,231)
Balances at December 31, 2022	32,141,368	666,277	(225)	(478,677)	187,375
Issuance of common stock upon the exercise of common stock options	493,935	6,155	—	—	6,155
Issuance of common stock in connection with employee stock purchase plan	25,894	955	—	—	955
Stock-based compensation expense	—	19,791	—	—	19,791
Purchases of capped calls related to convertible senior notes	—	(52,072)	—	—	(52,072)
Issuance of restricted common stock	10,304	—	—	—	—
Restricted common stock forfeitures	(698)	—	—	—	—
Foreign currency translation adjustment	—	—	26	—	26
Net loss	—	—	—	(25,028)	(25,028)
Balances at December 31, 2023	<u>32,670,803</u>	<u>\$ 641,106</u>	<u>\$ (199)</u>	<u>\$ (503,705)</u>	<u>\$ 137,202</u>

The accompanying notes are an integral part of these consolidated financial statements.

TRANSMEDICS GROUP, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	Year Ended December 31,		
	2023	2022	2021
Cash flows from operating activities:			
Net loss	\$ (25,028)	\$ (36,231)	\$ (44,215)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization expense	8,177	3,478	1,817
Stock-based compensation expense	19,791	10,321	6,878
Acquired in-process research and development expenses	27,212	—	—
Deferred taxes	(1,660)	—	—
Loss on extinguishment of debt	—	575	—
Loss on sale of marketable securities	—	107	—
Non-cash interest expense and end of term accretion expense	2,128	465	540
Non-cash lease expense	1,041	717	829
Net amortization of premiums on marketable securities	—	381	1,356
Unrealized foreign currency transaction (gains) losses	(342)	1,129	928
Changes in operating assets and liabilities, net of acquired assets and liabilities:			
Accounts receivable	(33,816)	(21,678)	840
Inventory	(28,092)	(8,024)	(4,894)
Prepaid expenses and other current assets	(2,101)	2,521	(3,151)
Other non-current assets	(54)	—	—
Accounts payable	6,957	(3,270)	5,090
Accrued expenses and other current liabilities	14,250	3,437	4,875
Deferred revenue	83	—	7
Operating lease liabilities	(1,574)	255	236
Net cash used in operating activities	(13,028)	(45,817)	(28,864)
Cash flows from investing activities:			
Purchases of property, plant and equipment	(151,847)	(11,907)	(3,519)
Purchase of business, net of cash acquired	(14,894)	—	—
Purchase of in-process research and development assets	(27,212)	—	—
Purchases of marketable securities	—	(10,496)	(72,024)
Proceeds from sales and maturities of marketable securities	—	76,916	104,810
Net cash provided by (used in) investing activities	(193,953)	54,513	29,267
Cash flows from financing activities:			
Proceeds from issuance of convertible senior notes, net of issuance costs paid of \$14,620	445,380	—	—
Purchases of capped calls related to convertible senior notes	(52,072)	—	—
Proceeds from issuance of long-term debt, net of issuance costs	—	58,509	—
Repayments of long-term debt	—	(36,050)	—
Proceeds from issuance of common stock in public offering, net of underwriting discounts and commissions and issuance costs paid	—	139,854	—
Proceeds from issuance of common stock upon exercise of stock options	6,155	4,667	974
Proceeds from issuance of common stock upon exercise of warrants	—	438	—
Proceeds from issuance of common stock in connection with employee stock purchase plan	955	509	419
Net cash provided by financing activities	400,418	167,927	1,393
Effect of exchange rate changes on cash, cash equivalents and restricted cash	193	(1,021)	(797)
Net increase in cash, cash equivalents and restricted cash	193,630	175,602	999
Cash, cash equivalents and restricted cash, beginning of period	201,682	26,080	25,081
Cash, cash equivalents and restricted cash, end of period	<u>\$ 395,312</u>	<u>\$ 201,682</u>	<u>\$ 26,080</u>
Supplemental disclosure of cash flow information:			
Cash paid for interest	\$ 8,089	\$ 3,260	\$ 3,334
Supplemental disclosure of non-cash activities:			
Transfers of inventory to property, plant and equipment	\$ 4,574	\$ 2,135	\$ 1,823
Purchases of property, plant and equipment included in accounts payable and accrued expenses	\$ 2,454	\$ 62	\$ 1,200
Operating lease liabilities arising from obtaining right-of-use assets	\$ 2,171	\$ —	\$ —
Reconciliation of cash, cash equivalents and restricted cash:			
Cash and cash equivalents	\$ 394,812	\$ 201,182	\$ 25,580
Restricted cash	500	500	500
Total cash, cash equivalents and restricted cash shown in the statement of cash flows	<u>\$ 395,312</u>	<u>\$ 201,682</u>	<u>\$ 26,080</u>

The accompanying notes are an integral part of these consolidated financial statements.

TRANSMEDICS GROUP, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Nature of the Business and Basis of Presentation

TransMedics Group, Inc. (“TransMedics Group” and, together with its consolidated subsidiaries, the “Company”) was incorporated in the Commonwealth of Massachusetts in October 2018. TransMedics, Inc. (“TransMedics”), an operating company and wholly owned subsidiary of TransMedics Group, was incorporated in the State of Delaware in August 1998. The Company is a commercial-stage medical technology company transforming organ transplant therapy for end-stage organ failure patients across multiple disease states. The Company developed the Organ Care System (“OCS”) to replace a decades-old standard of care. The OCS represents a paradigm shift that transforms organ preservation for transplantation from a static state to a dynamic environment that enables new capabilities, including organ optimization and assessment. The Company’s OCS technology replicates many aspects of the organ’s natural living and functioning environment outside of the human body. The Company also developed its National OCS Program (“NOP”), an innovative turnkey solution to provide outsourced organ retrieval, OCS organ management and logistics services, to provide transplant programs in the United States with a more efficient process to procure donor organs with the OCS. Our logistics services include aviation transportation, ground transportation and other coordination activity.

On August 16, 2023, the Company acquired Summit Aviation, Inc. and Northside Property Group, LLC (together “Summit”). Summit was a charter flight operator based in Bozeman, Montana. The acquisition enabled TransMedics to add aviation transportation services to its NOP and become a comprehensive national provider of donor organ retrieval and delivery in the United States.

The accompanying consolidated financial statements have been prepared on the basis of continuity of operations, realization of assets and the satisfaction of liabilities and commitments in the ordinary course of business. The Company has incurred recurring annual losses since inception, including a net loss of \$25.0 million for the year ended December 31, 2023. As of December 31, 2023, the Company had an accumulated deficit of \$503.7 million. The Company believes that its existing cash of \$394.8 million as of December 31, 2023 will be sufficient to fund its operations, capital expenditures, and debt service payments for at least the next 12 months following the filing of this Annual Report on Form 10-K. The Company may need to seek additional funding through equity financings, debt financings or strategic alliances. The Company may not be able to obtain financing on acceptable terms, or at all, and the terms of any financing may adversely affect the holdings or the rights of the Company’s shareholders. If the Company is unable to obtain funding when needed, the Company will be required to delay, reduce or eliminate some or all of its research and development programs, product expansion or commercialization efforts, or the Company may be unable to continue operations.

The Company is subject to risks and uncertainties common to companies in the medical device industry and of similar size, including, but not limited to, development by competitors of new technological innovations, dependence on key personnel, protection of proprietary technology, compliance with government regulations, uncertainty of market acceptance of products, and the need to obtain additional financing to fund operations. Products currently under development will require additional research and development efforts, including additional clinical testing and regulatory approval, prior to commercialization. These efforts require additional capital, adequate personnel, infrastructure and extensive compliance-reporting capabilities. The Company’s research and development may not be successfully completed, adequate protection for the Company’s technology may not be obtained, the Company may not obtain necessary government regulatory approval on its expected timeline or at all, and approved products may not prove commercially viable. The Company operates in an environment of rapid change in technology and competition.

The Company’s consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America (“GAAP”). Any reference in these notes to applicable guidance is meant to refer to the authoritative GAAP as found in the Accounting Standards Codification (“ASC”) and Accounting Standards Update (“ASU”) of the Financial Accounting Standards Board (“FASB”). The accompanying consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries. All intercompany accounts and transactions have been eliminated in consolidation.

2. Summary of Significant Accounting Policies

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management 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 revenue and expenses during the reporting periods. Significant estimates and assumptions reflected in these consolidated financial statements include, but are not limited to, revenue recognition, the valuation of inventory, the valuation of assets acquired and liabilities assumed in business combinations, including acquired intangible assets and the resulting goodwill, and the valuation of stock-based awards. The Company bases its estimates on historical experience, known trends and other market-specific or other relevant factors that it believes to be reasonable under the circumstances. On an ongoing basis, management evaluates its estimates as there are changes in circumstances, facts and experience. Changes in estimates are recorded in the period in which they become known. As of the date of issuance of these consolidated financial statements, the Company is not aware of any specific event or circumstance that would require the Company to update estimates, judgments or revise the carrying value of any assets or liabilities. Actual results may differ from those estimates or assumptions.

Risk of Concentrations of Credit, Significant Customers and Significant Suppliers

Financial instruments that potentially expose the Company to concentrations of credit risk consist primarily of cash and accounts receivable. The Company does not believe that it is subject to unusual credit risk beyond the normal credit risk associated with commercial banking relationships. As of December 31, 2023 and 2022, the Company had no allowance for credit losses.

Significant customers are those that accounted for 10% or more of the Company's revenue or accounts receivable. For the year ended December 31, 2023, no customer accounted for more than 10% of revenue. For the years ended December 31, 2022 and 2021, one customer accounted for 14% of revenue and one customer accounted for 11% of revenue, respectively. As of December 31, 2023 and 2022, no customer accounted for 10% or more of accounts receivable.

Certain of the components and subassemblies included in the Company's products are obtained from a sole source, a single source or a limited group of suppliers, as are sterilization services. Although the Company seeks to reduce dependence on those limited sources of suppliers, manufacturers and service providers, the partial or complete loss of certain of these sources could have a material adverse effect on the Company's operating results, financial condition and cash flows and damage its customer relationships.

Deferred Financing Costs

Deferred financing costs related to a recognized debt liability are recorded as a reduction of the carrying amount of the debt liability and amortized to interest expense using the effective interest method over the repayment term of the debt.

Cash Equivalents

The Company considers all highly liquid investments with original maturities of three months or less at the date of purchase to be cash equivalents.

Restricted Cash

As of December 31, 2023 and 2022, the Company maintained two letters of credit totaling \$0.5 million for the benefit of the landlord of its leased property. The Company was required to maintain a separate cash balance of \$0.5 million to secure the letters of credit. Related to this separate cash balance, the Company classified \$0.5 million as restricted cash (non-current) on its consolidated balance sheets as of December 31, 2023 and 2022.

Accounts Receivable

Accounts receivable are presented net of an allowance for credit losses, which is an estimate of amounts that may not be collectible. The Company performs ongoing credit evaluations of its customers and monitors economic conditions to identify facts and circumstances that may indicate its receivables are at risk of collection. The Company provides reserves against accounts receivable for estimated credit losses, if any, that may result from a customer's inability to pay based on the composition of its accounts receivable, current economic conditions and historical credit loss activity. Amounts deemed uncollectible are

charged or written-off against the reserve. As of December 31, 2023 and 2022, the Company had no allowance for credit losses. During the years ended December 31, 2023, 2022 and 2021, the Company did not record any provisions for credit losses. During the year ended December 31, 2022, the Company wrote off less than \$0.1 million of accounts receivable balances. During the years ended December 31, 2023 and 2021, the Company did not write off any accounts receivable balances.

Business Combinations

In determining whether an acquisition should be accounted for as a business combination or asset acquisition, the Company first determines whether substantially all of the fair value of the gross assets acquired is concentrated in a single identifiable asset or a group of similar identifiable assets. If this is the case, the single identifiable asset or the group of similar assets is not deemed to be a business and the acquisition is accounted for as an asset acquisition. If this is not the case, the Company then further evaluates whether the acquisition includes, at a minimum, an input and a substantive process that together significantly contribute to the ability to create outputs. If so, the Company concludes that the acquisition is a business and accounts for it as a business combination.

The Company accounts for business combinations using the acquisition method of accounting. In accordance with this method, assets acquired and liabilities assumed are recorded at their respective fair values at the acquisition date. The fair value of the consideration paid is assigned to the assets acquired and liabilities assumed based on their respective fair values. Goodwill represents the excess of the purchase price over the estimated fair values of the assets acquired and liabilities assumed.

Determining the fair value of assets acquired and liabilities assumed is judgmental in nature and can involve the use of significant estimates and assumptions. Fair value and useful life determinations are based on, among other things, valuations that use information and assumptions provided by management, which consider management's best estimates of inputs and assumptions that a market participant would use. Actual results may vary from these estimates and may result in adjustments to goodwill and acquisition date fair values of assets and liabilities during a measurement period or upon a final determination of asset and liability fair values, whichever comes first. Adjustments to fair values of assets and liabilities made after the end of the measurement period are recorded within operating results.

Transaction costs related to business combinations are expensed as incurred and are included in general and administrative expense in the consolidated statements of operations.

Asset Acquisitions

The Company measures and recognizes asset acquisitions that are not deemed to be business combinations based on the cost to acquire the asset or group of assets, which includes transaction costs. Goodwill is not recognized in asset acquisitions. In an asset acquisition, the cost allocated to acquire in-process research and development ("IPR&D") with no alternative future use is charged to expense at the acquisition date.

On August 2, 2023, the Company acquired certain assets related to lung and heart perfusion technology from Bridge to Life Ltd. and its subsidiary Tevosol, Inc., together ("BTL"). The Company intends to further develop these technologies to expand its product offerings and indications for organ transplantation. The Company accounted for the purchase of BTL as an asset acquisition as substantially all of the fair value of gross assets acquired were concentrated on a single set of identifiable activities consisting of lung and heart perfusion technology, referred to as the in-process research and development ("IPR&D") asset. Due to the stage of development of the IPR&D asset at the date of acquisition, it was not yet probable that there was future economic benefit from this asset. Absent successful clinical results and regulatory approval for the asset applications, there was no alternative future use associated with the asset. Accordingly, the value of the IPR&D asset of \$27.2 million was expensed as research and development expense in the consolidated statements of operations.

Goodwill and Acquired Intangible Assets

The Company records goodwill when consideration paid in a business combination exceeds the value of the net assets acquired. The Company's estimates of fair value are based upon assumptions believed to be reasonable at that time, but that are inherently uncertain and unpredictable. Goodwill is not amortized, but rather is tested for impairment annually in the fourth quarter, or more frequently if facts and circumstances warrant a review, such as significant underperformance of the business in relation to expectations, significant negative industry or economic trends and significant changes or planned changes in the use of the assets.

The Company has determined that there is a single reporting unit for the purpose of conducting this goodwill impairment assessment. The Company has the option of performing either a qualitative or quantitative assessment to determine whether further impairment testing is necessary. If it is more-likely-than-not that the fair value of a reporting unit is less than its carrying amount, a quantitative impairment test will be required. The quantitative goodwill impairment test requires management to estimate and compare the fair value of the reporting unit with its carrying value. If the fair value of the reporting unit exceeds the carrying value of the net assets, goodwill is not impaired. If the fair value of the reporting unit is less than the carrying value, the difference is recorded as an impairment loss up to the amount of goodwill.

Intangible assets are recorded at their estimated fair values at the date of acquisition and are reported net of accumulated amortization. The Company amortizes acquired intangible assets with finite lives over their estimated useful lives based on the pattern of consumption of the economic benefits or, if that pattern cannot be readily determined, on a straight-line basis.

Property, Plant and Equipment

Property, plant and equipment are stated at cost less accumulated depreciation and amortization. Depreciation and amortization expense is recognized using the straight-line method over the estimated useful life of each asset as follows:

	Estimated Useful Life
Transplant aircraft	10 years
Flight school aircraft	5 years
Manufacturing equipment	5 years
OCS Consoles	5 years
Computer equipment and software	3 years
Laboratory equipment	3 years
Office, trade show and training equipment	5 years
Leasehold improvements	Shorter of term of lease or 15 years

Depreciation and amortization expense of aircraft is recognized over the estimated useful lives of each asset to their salvage value. Salvage values estimated for transplant and flight school aircraft are approximately 50% of the original purchase price.

Costs incurred for OCS Consoles are recorded as inventory unless and until the Company determines that an OCS Console will either be used for the NOP or loaned to a customer for its use, at which time the Company reclassifies the cost of the OCS Console from inventory to property, plant and equipment and begins to depreciate the OCS Console over its estimated useful life. Such depreciation expense is classified as a cost of revenue. The Company retains title to all OCS Consoles loaned to customers.

Costs for capital assets not yet placed into service are capitalized as construction-in-progress and depreciated once placed into service. Upon retirement or sale, the cost of assets disposed of and the related accumulated depreciation and amortization are removed from the accounts and any resulting gain or loss is included in loss from operations. Expenditures for repairs and maintenance are charged to expense as incurred.

Impairment of Long-Lived Assets

Long-lived assets consist primarily of property, plant and equipment, right-of-use assets and intangible assets with finite lives. Long-lived assets to be held and used are tested for recoverability whenever events or changes in business circumstances indicate that the carrying amount of the assets may not be fully recoverable. Factors that the Company considers in deciding when to perform an impairment review include significant underperformance of the business in relation to expectations, significant negative industry or economic trends and significant changes or planned changes in the use of the assets. If an impairment review is performed to evaluate a long-lived asset group for recoverability, the Company compares forecasts of undiscounted cash flows expected to result from the use and eventual disposition of the long-lived asset group to its carrying value. An impairment loss would be recognized in loss from operations when estimated undiscounted future cash flows expected to result from the use of an asset group are less than its carrying amount. The impairment loss would be based on the excess of the carrying value of the impaired asset group over its fair value, determined based on discounted cash flows. The Company did not record any impairment losses on long-lived assets during the years ended December 31, 2023, 2022 and 2021.

Software Development Costs

The Company incurs costs to develop computer software that is embedded in the hardware components of the Company's OCS Console and OCS Perfusion Sets. Research and development costs related to this software are expensed as incurred, except

for costs of internally developed or externally purchased software that qualify for capitalization. Software development costs incurred subsequent to the establishment of technological feasibility, but prior to the general release of the product, are capitalized and amortized over their estimated useful life. Due to the short time period between achieving technological feasibility and product release and the insignificant amount of costs incurred during such periods, the Company did not capitalize any software development costs during the years ended December 31, 2023, 2022 and 2021.

The Company also capitalizes development costs related to internal-use software when it is probable that the expenditures will result in additional functionality. Costs incurred in the preliminary and post-implementation stages of development are expensed as incurred. Once an application has reached the development stage, internal and external costs, if direct and incremental, are capitalized until the software is substantially complete and ready for its intended use and depreciated over their estimated useful life. Capitalization ceases upon completion of all substantial testing performed to ensure the product is ready for its intended use. The Company did not capitalize any software development costs related to internal-use software during the years ended December 31, 2023, 2022 and 2021.

Inventory

Inventory is valued at the lower of cost or net realizable value. Cost is computed using the first-in, first-out method. The Company regularly reviews inventory quantities on-hand for excess and obsolete inventory and, when circumstances indicate, records charges to write down inventories to their estimated net realizable value, after evaluating historical sales, future demand, market conditions and expected product life cycles. Such charges are classified as cost of revenue in the consolidated statements of operations. Any write-down of inventory to net realizable value creates a new cost basis.

At the end of each reporting period, the Company assesses whether losses should be accrued on long-term manufacturing purchase commitments in accordance with ASC 330, *Inventory*, which requires that losses that are expected to arise from firm, noncancelable and unhedged commitments for the future purchase of inventory, measured in the same way as inventory losses, should be recognized in the current period in the statements of operations unless they are deemed recoverable through firm sales contacts or when there are other circumstances that reasonably assure continuing sales without price decline. As of the end of each reporting period presented in the accompanying consolidated financial statements, the Company did not identify any potential losses arising from remaining future purchase commitments as compared to estimated future customer sales through the remainder of the term of the manufacturing purchase commitment and, as a result, did not recognize any loss provision for future-period remaining purchase commitments for the year ended December 31, 2023.

Leases

The Company accounts for leases under ASC Topic 842, Leases (“ASC 842”). In accordance with ASC 842, the Company accounts for a contract as a lease when it has the right to control the asset for a period of time while obtaining substantially all of the asset’s economic benefits. The Company determines if an arrangement is a lease or contains an embedded lease at inception. For arrangements that meet the definition of a lease, the Company determines the initial classification and measurement of its right-of-use asset and lease liability at the lease commencement date and thereafter if modified. The lease term includes any renewal options that the Company is reasonably assured to exercise. The present value of lease payments is determined by using the interest rate implicit in the lease, if that rate is readily determinable; otherwise, the Company uses its estimated secured incremental borrowing rate for that lease term. The Company’s policy is to not record leases with an original term of twelve months or less on its consolidated balance sheets and recognizes those lease payments in the income statement on a straight-line basis over the lease term.

In addition to rent, the leases may require the Company to pay additional costs, such as utilities, maintenance and other operating costs, which are generally referred to as non-lease components. The Company has elected to not separate lease and non-lease components. Only the fixed costs for lease components and their associated non-lease components are accounted for as a single lease component and recognized as part of a right-of-use asset and lease liability. Rent expense for operating leases is recognized on a straight-line basis over the reasonably assured lease term based on the total lease payments and is included in operating expense in the consolidated statements of operations.

Revenue from leasing arrangements is not subject to the revenue standard for contracts with customers and remains separately accounted for under ASC 842. In accordance with ASC 842, lessors should classify and account for a lease with variable lease payments that do not depend on a reference index or a rate as an operating lease if the lease would have been classified as a sales-type lease or a direct financing lease and the lessor would have otherwise recognized a day-one loss. The Company’s OCS Console implied rental agreements qualify as sales-type leases with certain variable payments that meet specified criteria such that a day-one loss would be recognized under ASC 842. Therefore, in accordance with ASC 842, such

leases are accounted for as operating leases and the Company does not derecognize the leased asset (the OCS Console) at the time of the sale but depreciates the leased asset over the useful life of the asset.

Fair Value Measurements

Certain assets and liabilities are carried at fair value under GAAP. Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. Financial assets and liabilities carried at fair value are to be classified and disclosed in one of the following three levels of the fair value hierarchy, of which the first two are considered observable and the last is considered unobservable:

- Level 1—Quoted prices in active markets for identical assets or liabilities.
- Level 2—Observable inputs (other than Level 1 quoted prices), such as quoted prices in active markets for similar assets or liabilities, quoted prices in markets that are not active for identical or similar assets or liabilities, or other inputs that are observable or can be corroborated by observable market data.
- Level 3—Unobservable inputs that are supported by little or no market activity and that are significant to determining the fair value of the assets or liabilities, including pricing models, discounted cash flow methodologies and similar techniques.

The carrying values of the Company's accounts receivable, accounts payable and accrued expenses approximate their fair values due to the short-term nature of these assets and liabilities. The carrying value of the Company's long-term debt approximates its fair value (a level 2 measurement) at each balance sheet date due to its variable interest rate, which approximates a market interest rate. The Company's 1.50% Convertible Senior Notes due 2028 (the "Notes") are carried at the face value less unamortized debt discount and issuance costs on the consolidated balance sheets, and the fair value of the convertible senior notes is presented at each reporting period for disclosure purposes only (see Note 8).

Segment Information

The Company manages its operations as a single segment for the purposes of assessing performance and making operating decisions. The Company has developed and is commercializing a proprietary system to preserve and deliver human organs for transplant in a near-physiologic condition to address the limitations of cold storage organ preservation. Operating segments are defined as components of an enterprise for which separate financial information is regularly evaluated by the Company's chief operating decision maker, or decision-making group, in deciding how to allocate resources and assess performance. The Company has determined that its chief operating decision maker is its Chief Executive Officer. The Company's chief operating decision maker reviews the Company's financial information on a consolidated basis for purposes of allocating resources and assessing financial performance.

Product Warranties

The Company provides a one-year warranty on its OCS Consoles and disposable sets and replaces or repairs any OCS Console or disposable set that does not function in accordance with the product specifications. OCS Consoles returned to the Company may be refurbished and redeployed. Estimated warranty costs are recorded at the time of shipment of the OCS Console or disposable set. Warranty costs are estimated based on the current expected product replacement or repair cost and expected replacement or repair rates based on historical experience. The Company evaluates its warranty accrual at the end of each reporting period and makes adjustments as necessary. As of December 31, 2023 and 2022, the warranty accrual was less than \$0.1 million each.

Revenue Recognition

The Company generates net product revenue primarily from sales of its single-use, organ-specific disposable sets used on its organ-specific OCS Consoles. To a lesser extent, the Company also generates product revenue from the sale of OCS Consoles to customers and the implied rental of OCS Consoles loaned to customers at no charge. For each new transplant procedure, customers purchase an additional OCS disposable set for use on the customer's existing organ-specific OCS Console. The Company also generates service revenue by providing outsourced organ retrieval, OCS organ management and logistics services under its NOP in the United States.

The Company recognizes revenue from sales to customers applying the following five steps: (1) identification of the contract, or contracts, with a customer, (2) identification of the performance obligations in the contract, (3) determination of the transaction price, (4) allocation of the transaction price to the performance obligations in the contract, and (5) recognition of revenue when, or as, performance obligations are satisfied.

Substantially all of the Company's customer contracts have multiple-performance obligations that contain deliverables consisting of OCS Perfusion Sets and OCS Solutions. Customer contract deliverables may also include organ retrieval, OCS organ management services and organ transportation under the Company's NOP or an OCS Console, whether sold or loaned to the customer. The Company evaluates each promise within a multiple-performance obligation arrangement to determine whether it represents a distinct performance obligation. The primary performance obligations in the Company's customer arrangements from which it derives revenue are the OCS Perfusion Sets, the OCS Solutions, the OCS Console, organ retrieval services, OCS organ management services and organ transportation logistics.

When a customer order includes an OCS Console, the Company has determined that customer training and the equipment set-up of the OCS Console, each performed by the Company, are not distinct because they are not sold on a standalone basis and can only be performed by the Company in conjunction with a sale or loan of its OCS Console. In addition, the Company has determined that the OCS Console itself is not distinct because the customer cannot benefit from the OCS Console without the training and equipment set-up having been completed. As a result, when the order includes an OCS Console, the Company has concluded that training, OCS Console equipment set-up, and the OCS Console itself are highly interdependent and represent a single, combined performance obligation. The Company recognizes revenue from the single, combined performance obligation only once the OCS Console has arrived at the customer site and the training and equipment set-up have been completed by the Company.

Customer orders may include the loan of an OCS Console as well as OCS disposable sets used in each transplant procedure. When the Company loans the OCS Console to the customer, it retains title to the console at all times and does not require minimum purchase commitments from the customer related to any OCS products. In such cases, the Company invoices the customer for OCS disposable sets based on customer orders received for each new transplant procedure and the prices set forth in the customer agreement. Over time, the Company typically recovers the cost of the loaned OCS Console through the customer's continued purchasing and use of additional OCS disposable sets. For these reasons, the Company has determined that part of the arrangement consideration for the disposable set is an implied rental payment for use of the OCS Console. Therefore, the Company allocates the arrangement consideration between the lease deliverables (i.e., the OCS Console) and non-lease deliverables (i.e., the OCS disposable sets) based on the relative estimated standalone selling price of each distinct performance obligation. To date, the amounts allocated to lease deliverables have been insignificant.

Revenue from sales to customers of OCS Perfusion Sets, OCS Solutions and OCS Consoles is classified as net product revenue in the Company's consolidated statements of operations. Revenue from sales to customers of organ retrieval, OCS organ management services and organ transportation logistics is classified as service revenue in the Company's consolidated statements of operations.

Revenue is recognized when control is transferred to the customer in an amount that reflects the consideration the Company expects to be entitled to in exchange for the product or services. When a customer order includes disposable sets and organ retrieval, OCS organ management or logistics services, the Company has determined that the disposable sets and services constitute separate performance obligations and recognizes revenue as the disposable sets and services are each delivered to the customer.

Payments Made to Customers

Under some of the Company's customer clinical trial agreements, the Company makes payments to its customers for reimbursements of clinical trial materials and for specified clinical documentation related to the customer's use of its OCS products. The Company also makes payments to customers involved in post-approval studies for information related to the transplant procedures performed. The Company determines the appropriate accounting treatments for these payments depending on the nature of the payment and whether they are for distinct goods or services.

Contract Assets and Liabilities

The Company recognizes a receivable at the point in time at which it has an unconditional right to payment. Such receivables are not contract assets. Contract assets arise from unbilled amounts in customer arrangements when revenue recognized exceeds the amount billed to the customer and the Company's right to payment is not just subject to the passage of time. The Company had no contract assets as of December 31, 2023 and 2022.

Contract liabilities represent the Company's obligation to transfer goods or services to a customer for which it has received consideration (or the amount is due) from the customer. The Company has determined that its only contract liabilities are deferred revenue, which consists of amounts that have been invoiced but that have not been recognized as revenue.

Remaining Performance Obligations

The Company generally satisfies performance obligations within one year of the contract inception date, which amounts are included in deferred revenue and are not material.

Other Revenue Considerations

The Company only includes estimated variable amounts in the transaction price to the extent it is probable that a significant reversal of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is resolved. The Company does not assess whether promised goods or services are performance obligations if they are deemed immaterial in the context of the contract with the customer. Additionally, the Company does not assess whether a contract has a significant financing component if the expectation at contract inception is that the period between payment by the customer and the transfer of the promised goods or services to the customer will be one year or less. Revenue is reported net of taxes.

Distributors

The Company markets and sells its products primarily through its direct sales force, which sells its products to end customers globally. A small portion of the Company's revenue is generated by sales to a limited number of distributors in Europe and Asia-Pacific. When the Company transacts with a distributor, its contractual arrangement is with the distributor and not with the end customer. Whether the Company transacts business with and receives the order from a distributor or directly from an end customer, its revenue recognition policy and resulting pattern of revenue recognition for the order are the same.

Research, Development and Clinical Trials Costs

Research, development and clinical trials expenses consist of costs incurred for research activities, product development, hardware and software engineering and clinical trial activities, including salaries and bonuses, stock-based compensation, employee benefits, facilities costs, laboratory supplies, depreciation, testing, regulatory, data management and consulting costs.

Research, development and clinical trials costs are expensed as incurred. Advance payments for goods or services to be received in the future for use in research, development and clinical trials activities are recorded as prepaid expenses. Such prepaid expenses are recognized as an expense when the related goods have been delivered or the related services have been performed, or when it is no longer expected that the goods will be delivered or the services rendered.

Patent Costs

All patent-related costs incurred in connection with filing and prosecuting patent applications are expensed as incurred due to the uncertainty about the recovery of the expenditure. Amounts incurred are classified as general and administrative expenses.

Foreign Currency Translation

The functional currency of each of the Company's foreign subsidiaries is the currency of the local country. Assets and liabilities of the Company's foreign subsidiaries are translated into U.S. dollars using the period-end exchange rates, and income and expense items are translated into U.S. dollars using average exchange rates in effect during each period. The effects of these foreign currency translation adjustments are included in accumulated other comprehensive loss, a separate component of stockholders' equity.

The Company also incurs transaction gains and losses resulting from intercompany transactions as well as transactions with customers or vendors denominated in currencies other than the functional currency of the legal entity in which the transaction is recorded. Realized and unrealized foreign currency transaction gains (losses) are included in the consolidated statements of operations as a component of other income (expense) and totaled \$0.3 million, (\$1.3 million) and (\$1.0 million) for the years ended December 31, 2023, 2022 and 2021, respectively.

Stock-Based Compensation

The Company accounts for stock-based awards granted to employees, non-employees and directors based on the fair value of the award on the date of grant. The fair value of option awards is measured using the Black-Scholes option-pricing model. The fair value of restricted common stock awards is measured based on the difference between market value of the Company's common stock on date of grant and the purchase price (if any). Generally, the Company issues awards with only service-based vesting conditions. Compensation expense for those awards is recognized over the vesting period of the respective award using the straight-line method. The Company accounts for forfeitures as they occur and records compensation cost assuming all option holders will complete the requisite service period. When the unvested portion of an award is forfeited, the Company reverses compensation expense previously recognized in the period of the forfeiture.

The Company classifies stock-based compensation expense in its consolidated statements of operations in the same manner in which the award recipient's payroll costs are classified or in which the award recipient's service payments are classified.

Comprehensive Income (Loss) and Accumulated Other Comprehensive Income (Loss)

Comprehensive income (loss) includes net income (loss) as well as other changes in stockholders' equity that result from transactions and economic events other than those with stockholders. The Company's only elements of other comprehensive income (loss) are foreign currency translation adjustments and unrealized gains (losses) on marketable securities.

Accumulated other comprehensive income (loss) on the consolidated balance sheets consists primarily of foreign currency translation adjustments. Accumulated other comprehensive income (loss) attributable to unrealized gains (losses) on marketable securities has not been significant.

Net Income (Loss) per Share

Basic net income (loss) per common share is computed by dividing the net income (loss) by the weighted average number of shares of common stock outstanding for the period. Diluted net income (loss) per common share is computed by dividing net income (loss) by the weighted average number of shares of common stock outstanding for the period, including potential dilutive common shares assuming the dilutive effect of outstanding stock awards, using the treasury stock method, and outstanding convertible notes, using the if-converted method. For periods in which the Company reports a net loss, diluted net loss per common share is the same as basic net loss per common share, since dilutive common shares are not assumed to have been issued if their effect is anti-dilutive. The Company reported a net loss attributable to common stockholders for each of the years ended December 31, 2023, 2022 and 2021.

The Company's potential dilutive securities have been excluded from the computation of diluted net loss per share as the effect would be to reduce the net loss per share. The Company excluded the following potential common shares, presented based on amounts outstanding at each period end, from the computation of diluted net loss per share attributable to common stockholders for the periods indicated above because including them would have had an anti-dilutive effect:

	As of December 31,	
	2023	2022
Warrants to purchase common stock	14,440	14,440
Options to purchase common stock	3,289,051	3,288,791
Employee stock purchase plan	9,506	14,135
Restricted stock units	328,366	—
Restricted stock awards	9,606	24,315
Convertible senior notes	4,893,848	—
	<u>8,544,817</u>	<u>3,341,681</u>

Income Taxes

The Company accounts for income taxes under the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been recognized in the financial statements or in the Company's tax returns. Deferred taxes are determined based on the difference between the financial statement and tax basis of assets and liabilities using enacted tax rates in effect in the years in which the differences are expected to reverse. Changes in deferred tax assets and liabilities are recorded in the provision for income taxes. The Company assesses the likelihood that its deferred tax assets will be realized and, to the extent it believes, based upon the weight of available evidence, that it is more likely than not that all or a portion of the deferred tax assets will not be realized, a valuation allowance is established through a charge to income tax expense. Potential for recovery of deferred tax assets is evaluated by analyzing carryback capacity in periods with taxable income, reversal of existing taxable temporary differences and estimating the future taxable profits expected and considering prudent and feasible tax planning strategies.

The Company accounts for uncertainty in income taxes recognized in the financial statements by applying a two-step process to determine the amount of tax benefit to be recognized. First, the tax position must be evaluated to determine the likelihood that it will be sustained upon external examination by the taxing authorities. If the tax position is deemed more-likely-than-not to be sustained, the tax position is then assessed to determine the amount of benefit to recognize in the financial statements. The amount of benefit that may be recognized is the largest amount that has a greater than 50% likelihood of being realized upon ultimate settlement. The provision for income taxes includes the effects of any resulting tax reserves, or unrecognized tax benefits, that are considered appropriate as well as the related net interest and penalties.

Recently issued accounting pronouncements

In November 2023, the FASB issued ASU 2023-07, *Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures*, which requires public entities to disclose information about their reportable segments' significant expenses and other segment items on an interim and annual basis. Public entities with a single reportable segment are required to apply the disclosure requirements in ASU 2023-07, as well as all existing segment disclosures and reconciliation requirements in ASC 280 on an interim and annual basis. ASU 2023-07 is effective for fiscal years beginning after December 15, 2023, and for interim periods within fiscal years beginning after December 15, 2024, with early adoption permitted. The Company is currently assessing the impact of the adoption of this guidance.

In December 2023, the FASB issued ASU 2023-09, *Income Taxes (Topic 740): Improvements to Income Tax Disclosures*, which requires public entities, on an annual basis, to provide disclosure of specific categories in their tax rate reconciliations, as well as disclosure of income taxes paid disaggregated by jurisdiction. ASU 2023-09 is effective for fiscal years beginning after December 15, 2024, with early adoption permitted. The Company is currently assessing the impact of the adoption of this guidance.

3. Acquisition of Summit

On August 16, 2023, the Company acquired Summit pursuant to the terms of an equity purchase agreement. Summit was a charter flight operator based in Bozeman, Montana. The acquisition enabled TransMedics to add aviation transportation services to its NOP and become a comprehensive national provider of donor organ retrieval and delivery in the United States.

The acquisition was accounted for as a purchase of a business under ASC Topic 805, Business Combinations. Under the acquisition method of accounting, the assets and liabilities were recorded as of the acquisition date, at their respective fair values. The preliminary purchase consideration of \$14.9 million reflected an upfront cash payment of \$18.0 million, net of cash acquired and working capital adjustments.

The Company's consolidated financial statements reflect the preliminary allocation of the purchase price to the assets and liabilities assumed based on fair value as of the date of the acquisition. The Company's estimate of preliminary purchase consideration is subject to change upon finalizing working capital adjustments. The Company's preliminary estimate of the fair value of specifically identifiable assets acquired and liabilities assumed as of the date of acquisition is subject to change upon finalizing its valuation analysis. During the three months ended December 31, 2023, the Company recorded an adjustment to goodwill of \$0.3 million, representing an adjustment to its estimate of the fair value of accounts payable and deferred tax liabilities as of the acquisition date. The final determinations, which are expected to be completed by August 2024, may result in additional changes in the fair value of certain assets and liabilities as compared to these preliminary estimates.

The following tables summarize the preliminary allocation of the purchase price (in thousands):

Assets Acquired and Liabilities Assumed:

Accounts receivable	\$	2,089
Other current assets		1,040
Property, plant and equipment		5,922
Right-of-use asset		288
Intangible assets		2,430
Goodwill		11,990
Total assets acquired		23,759
Accounts payable and other current liabilities		(6,917)
Deferred tax liabilities		(1,660)
Operating lease liabilities		(288)
Total allocation of purchase price consideration, net of cash acquired	\$	<u>14,894</u>

Property, plant and equipment consist primarily of flight school aircraft and construction-in-progress related to a commercial aircraft hangar that Summit is in the process of constructing. Flight school aircraft were valued using market comparisons adjusted for aircraft-specific condition. The fair value of construction-in-progress approximated its cost.

Intangible assets consisted primarily of a customer relationship asset of \$2.3 million related to flight school revenue and was valued using the multi-period excess earnings method, a form of the income approach. Significant assumptions and estimates utilized in this model include the revenue growth rate, contract renewal probability and the discount rate. Intangible assets are being amortized on a straight-line basis to selling, general and administrative over their estimated useful lives of 12 years as of the acquisition date.

Goodwill was recognized for the excess purchase price over the fair value of the net assets acquired. Goodwill is primarily attributable to the workforce of the acquired business (which is not eligible for separate recognition as an identifiable intangible asset) and anticipated synergies between Summit's existing business processes and the NOP. Goodwill from the acquisition is included within the Company's one reporting unit and is included in the Company's enterprise-level annual review for impairment. Goodwill resulting from the acquisition is not deductible for tax purposes.

Deferred tax liabilities relate to the differences between the fair value recognized in purchase accounting and the tax basis of property, plant and equipment and intangible assets. The net deferred tax liability is a source of income to support the recognition of a portion of our existing deferred tax assets. Therefore, the Company recorded a tax benefit of \$1.7 million for the release of a portion of its valuation allowance related to the net deferred tax liabilities recorded in purchase accounting.

The Company incurred total transaction costs of \$2.0 million for third-party professional services utilized for the acquisition, which are included in selling, general and administrative costs in the consolidated statements of operations. The operating results of the acquired entity have been included in the consolidated financial statements beginning on the acquisition date. Pro forma results of operations for the acquisition have not been presented as they are not material to the Company's consolidated results of operations.

4. Inventory

Inventory consisted of the following (in thousands):

	December 31,	
	2023	2022
Raw materials	\$ 25,823	\$ 10,939
Work-in-process	3,806	1,876
Finished goods	14,606	7,790
	<u>\$ 44,235</u>	<u>\$ 20,605</u>

5. Property, Plant and Equipment, Net

Property, plant and equipment, net consisted of the following (in thousands):

	December 31,	
	2023	2022
Transplant aircraft	\$ 141,855	\$ —
Flight school aircraft	3,484	—
OCS Consoles	14,491	10,878
Manufacturing equipment	6,898	3,721
Computer equipment and software	3,021	2,064
Laboratory equipment	1,875	671
Office, trade show and training equipment	4,006	2,121
Leasehold improvements	13,354	12,415
Construction-in-progress	6,250	482
	<u>195,234</u>	<u>32,352</u>
Less: Accumulated depreciation and amortization	(21,293)	(13,129)
	<u>\$ 173,941</u>	<u>\$ 19,223</u>

During the years ended December 31, 2023, 2022 and 2021, total depreciation and amortization expense was \$8.1 million, \$3.5 million and \$1.8 million, respectively. Construction-in-progress as of December 31, 2023 primarily relates to construction of a commercial aircraft hangar at Bozeman Yellowstone International Airport in Bozeman, Montana. Substantially all of the Company's property, plant and equipment are held in the United States.

6. Goodwill and Intangible Assets

The carrying amount of goodwill was \$12.0 million as of December 31, 2023 related to the Company's acquisition of Summit. Goodwill is not amortized, but instead is reviewed for impairment at least annually or more frequently when events and circumstances occur indicating that the recorded goodwill may be impaired. To date, the Company has had no impairments to goodwill.

Acquired intangible assets consisted of the following (in thousands):

	Weighted Average Useful Life (in years)	December 31, 2023		
		Gross Amount	Accumulated Amortization	Carrying Value
Customer relationship	12	\$ 2,320	\$ 73	\$ 2,247
Other	12	110	3	107
		<u>\$ 2,430</u>	<u>\$ 76</u>	<u>\$ 2,354</u>

Amortization expense is recorded within selling, general and administrative expense. Amortization expense for the year ended December 31, 2023 was \$0.1 million. Future amortization expense of the intangible assets as of December 31, 2023, is expected to be as follows (in thousands):

Year Ending December 31,	
2024	\$ 203
2025	203
2026	203
2027	203
2028	203
Thereafter	1,339
	<u>\$ 2,354</u>

7. Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities consisted of the following (in thousands):

	December 31,	
	2023	2022
Accrued payroll and related expenses	\$ 20,300	\$ 9,812
Accrued transportation costs	4,381	2,581
Accrued research, development and clinical trials expenses	1,771	1,876
Accrued other	11,769	4,366
	<u>\$ 38,221</u>	<u>\$ 18,635</u>

8. Long-Term Debt and Financing Arrangements

Convertible Senior Notes

Convertible senior notes consisted of the following (in thousands):

	December 31, 2023
Principal amount of convertible senior notes	\$ 460,000
Less: Current portion of convertible senior notes	—
Convertible senior notes, net of current portion	460,000
Debt discount, net of accretion	(12,860)
Convertible senior notes, net of discount and current portion	<u>\$ 447,140</u>

As of December 31, 2023, the estimated fair value of the Notes was \$524.9 million. The fair value was determined based on the quoted price of the last trade of the Notes prior to the end of the reporting period in an inactive market, which is considered as Level 2 in the fair value hierarchy.

On May 11, 2023, the Company issued \$460.0 million aggregate principal amount of the Notes, in a private placement to qualified institutional buyers pursuant to Rule 144A under the Securities Act, pursuant to an indenture dated May 11, 2023, by and between the Company and U.S. Bank Trust Company, National Association (the “Indenture”).

The initial conversion price of the Notes is approximately \$94.00 per share of common stock, which represents a premium of approximately 32.5% over the closing price of the Company’s common stock on May 8, 2023. The Notes will mature on June 1, 2028, unless earlier repurchased, redeemed or converted. The Company used \$52.1 million of the proceeds from the sale of the Notes to fund the cost of entering into capped call transactions, described below. The proceeds from the issuance of the Notes were approximately \$393.3 million, net of capped call transaction costs of \$52.1 million and initial purchaser discounts and other debt issuance costs totaling \$14.6 million.

The Notes bear interest at a rate of 1.50% per year and interest is payable semiannually in arrears on June 1 and December 1 of each year. The initial conversion rate is 10.6388 shares of common stock per \$1,000 principal amount of the Notes, which represents an initial conversion price of approximately \$94.00 per share of common stock. The conversion rate and conversion price are subject to customary adjustments upon the occurrence of certain events as described in the Indenture.

Before March 1, 2028, noteholders have the right to convert their Notes only upon the occurrence of certain events, including certain corporate events, and during the five business days immediately after any ten consecutive trading days in which the trading price per \$1,000 principal amount of Notes is less than ninety eight percent (98%) of the as converted value. Additionally, the noteholder can convert their Notes during any calendar quarter (and only during such calendar quarter), commencing after the calendar quarter ending on September 30, 2023 but before March 1, 2028, provided the last reported sale price of the common stock for at least 20 trading days is greater than or equal to 130% of the conversion price during the 30 consecutive trading days ending on the last trading day of a calendar quarter. From and after March 1, 2028, noteholders may convert their Notes at any time at their election until the close of business on the second scheduled trading day immediately before the maturity date. The Company has the right to elect to settle conversions either in cash, shares or in a combination of cash and shares of its common stock.

Prior to June 8, 2026, the Notes will not be redeemable. On or after June 8, 2026, the Company may redeem for cash all or any portion of the Notes (subject to the partial redemption limitation set forth in the Indenture), at its option, if the last reported sale price of the Company’s common stock has been at least 130% of the conversion price then in effect for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading day period (including the last trading day of such period) ending on, and including, the trading day immediately preceding the date on which the Company provides notice of redemption. In addition, calling any Note for redemption will constitute a “Make-Whole Fundamental Change” (as defined in the Indenture) with respect to that Note, in which case the conversion rate applicable to the conversion of that Note will be increased in certain circumstances if it is converted after it is called for redemption.

The Company accounts for the Notes as a single liability in accordance with ASC 470-20 as the Company concluded that embedded conversion features within the Notes do not meet the requirements for bifurcation. Initial purchaser discounts and other debt issuance costs related to the Notes totaling \$14.6 million were recorded by the Company as a debt discount. The debt discount is reflected as a reduction of the carrying value of the Notes on the Company’s consolidated balance sheets and is being accreted to interest expense over the term of the Notes using the effective interest method. During the year ended December 31, 2023, the Company recognized \$6.2 million in interest expense related to the 1.50% cash coupon of the Notes and amortization of the debt issuance costs. During the year ended December 31, 2023, the effective interest rate on the outstanding Notes was approximately 2.1%.

Capped Call Transactions

In connection with the offering of the Notes, the Company entered into privately negotiated capped call transactions (the “Capped Calls”) with certain financial institution counterparties (the “Option Counterparties”). The Capped Calls are generally intended to reduce or offset the potential dilution to the common stock upon any conversion of the Notes with such reduction or offset, as the case may be, subject to a cap based on the cap price. For accounting purposes, the Capped Calls are separate transactions, and not part of the terms of the Notes. The Capped Calls are recorded in stockholders’ equity and are not accounted for as derivatives. The cost of \$52.1 million incurred to purchase the Capped Calls were recorded as a reduction to common stock on the accompanying consolidated balance sheets.

Each of the Capped Calls has an initial strike price of approximately \$94.00 per share, subject to certain adjustments, which corresponds to the initial conversion price of the Notes. The Capped Calls have an initial cap price of \$141.88 per share, subject to certain adjustments. The Capped Calls cover, subject to anti-dilution adjustments, approximately 4,893,848 shares of the Company’s common stock, which is the same number of shares of the Company’s common stock initially underlying the Notes. The Capped Calls are subject to automatic exercise over a 40 trading day period commencing on April 3, 2028, subject to earlier termination under certain circumstances.

Long-term debt

Long-term debt consisted of the following (in thousands):

	<u>December 31,</u>	
	<u>2023</u>	<u>2022</u>
Principal amount of long-term debt	\$ 60,000	\$ 60,000
Less: Current portion of long-term debt	—	—
Long-term debt, net of current portion	60,000	60,000
Debt discount, net of accretion	(936)	(1,304)
Long-term debt, net of discount and current portion	<u>\$ 59,064</u>	<u>\$ 58,696</u>

Canadian Imperial Bank of Commerce Credit Agreement

In July 2022, the Company entered into a credit agreement with Canadian Imperial Bank of Commerce (“CIBC”), as amended by the First Amendment to Credit Agreement, dated as of May 8, 2023, by and among the Company and CIBC (the “First Amendment”), the Second Amendment to Credit Agreement, dated as of June 23, 2023, by and among the Company, and CIBC (the “Second Amendment”), the Third Amendment to Credit Agreement, dated as of November 9, 2023, by and among the Company, and CIBC (the “Third Amendment”) (as amended, the “CIBC Credit Agreement”), pursuant to which the Company borrowed \$60.0 million. In connection with the CIBC Credit Agreement, the Company repaid all amounts due under its previously outstanding credit agreement and recorded a loss on extinguishment of debt of \$0.6 million during 2022, which amount was classified as other expense in the consolidated statements of operations.

On May 8, 2023, the Company entered into the First Amendment, which among other items, allowed for the issuance of the Notes and capped call transactions. On June 23, 2023, the Company entered into the Second Amendment, which among other items, permits the Company to make acquisitions of equity or assets of another entity, subject to the conditions under the Second Amendment, including acquisitions, without further consent of CIBC, up to a maximum amount of \$50.0 million for the cash payable in connection with an individual acquisition and a maximum amount in aggregate of \$150.0 million for the total cash consideration payable for all acquisitions made by the Company on or after June 23, 2023. The definition of consolidated adjusted EBITDA was also amended by the Second Amendment to add a provision for the pro forma effect of any acquisitions that occur during the period. Additionally, pursuant to the Second Amendment, the parties agreed to extend the start of the principal repayment period to July 31, 2026, on which date the Company is obligated to begin repayment of the term loans in equal monthly installments until the maturity date in July 2027. On November 9, 2023, the Company entered into the Third Amendment, which, among other items, permits the Company to make acquisitions of equity or assets of another entity, subject to the conditions under the Third Amendment, without further consent of CIBC, for cash consideration in a maximum aggregate amount of \$300.0 million for all such acquisitions made by the Company on or after November 9, 2023.

Borrowings under the CIBC Credit Agreement bear interest at an annual rate equal to either, at the Company's option, (i) the secured overnight financing rate for an interest period selected by the Company, subject to a minimum of 1.50%, plus 2.0% or (ii) 1.0% plus the higher of a) the prime rate subject to a minimum of 4.0% or b) the Federal Funds Effective Rate, plus 0.5%. At the Company's option, the Company may prepay borrowings outstanding under the CIBC Credit Agreement, subject to a prepayment fee of 2.0% of outstanding borrowings if paid prior to 12 months after the closing date, and 1.0% if paid on or after 12 months after the closing date but prior to 24 months after the closing date.

In connection with entering into the CIBC Credit Agreement, the Company paid upfront fees and other costs of \$1.5 million, which were recorded by the Company as a debt discount. The debt discount is reflected as a reduction of the carrying value of long-term debt on the Company's consolidated balance sheets and is being accreted to interest expense over the term of the CIBC Credit Agreement using the effective interest method.

All obligations under the CIBC Credit Agreement are guaranteed by the Company and each of its material subsidiaries. All obligations of the Company and each guarantor are secured by substantially all of the Company's and each guarantor's assets, including their intellectual property, subject to certain exceptions. Under the CIBC Credit Agreement, the Company has agreed to customary representations and warranties, events of default and certain affirmative and negative covenants to which it will remain subject until maturity. The financial covenants include, among other covenants, (x) a requirement to maintain a minimum liquidity amount of the greater of either (i) the consolidated adjusted EBITDA loss (or gain) for the trailing four month period (only if EBITDA is negative) and (ii) \$10.0 million, and (y) a requirement to maintain total net revenue of at least 75% of the level set forth in the total revenue plan presented to CIBC. As discussed above, the definition of consolidated adjusted EBITDA was amended to include the pro forma effect of acquisitions. The obligations under the CIBC Credit Agreement are subject to acceleration upon the occurrence of specified events of default, including payment default, change in control, bankruptcy, insolvency, certain defaults under other material debt, certain events with respect to governmental approvals (if such events could cause a material adverse change in the Company's business), failure to comply with certain covenants and a material adverse change in the Company's business, operations or financial condition. As of December 31, 2023, the Company was in compliance with all financial covenants of the CIBC Credit Agreement.

During the continuance of an event of default, the interest rate per annum will be equal to the rate that would have otherwise been applicable at the time of the event of default plus 2.0%. If an event of default (other than certain events of bankruptcy or insolvency) occurs and is continuing, CIBC may declare all or any portion of the outstanding principal amount of the borrowings plus accrued and unpaid interest to be due and payable. Upon the occurrence of certain events of bankruptcy or insolvency, all of the outstanding principal amount of the borrowings plus accrued and unpaid interest will automatically become due and payable. In addition, the Company may be required to prepay outstanding borrowings, subject to certain exceptions, with portions of net cash proceeds of certain asset sales and certain casualty and condemnation events.

The Company assessed all terms and features of the CIBC Credit Agreement in order to identify any potential embedded features that would require bifurcation. As part of this analysis, the Company assessed the economic characteristics and risks of the debt. The Company determined that all features of the CIBC Credit Agreement are either clearly and closely associated with a debt host or have a de minimis fair value and, as such, do not require separate accounting as a derivative liability.

As of December 31, 2023, the stated interest rate applicable to borrowings under the CIBC Credit Agreement was 7.3%. During the years ended December 31, 2023 and 2022, the weighted average effective interest rate on outstanding borrowings under the CIBC Credit Agreement was approximately 7.7% and 6.6%, respectively.

9. Equity

Preferred Stock

As of December 31, 2023, the Company's articles of organization authorized the Company to issue up to 25,000,000 shares of preferred stock, no par value per share, all of which is undesignated. The preferred stock will have such rights, preferences, privileges and restrictions, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences, as shall be determined by the Company's boards of directors upon issuance.

Common Stock

As of December 31, 2023, the Company's articles of organization authorized the Company to issue up to 150,000,000 shares of common stock, no par value per share. Each share of common stock is entitled to one vote on all matters submitted to a vote of the Company's stockholders. The holders of common stock are entitled to receive dividends, if any, as may be declared by the board of directors, as described above. Through December 31, 2023, no dividends had been declared or paid.

Warrants

As of December 31, 2023, the Company had outstanding warrants to purchase 14,440 shares of common stock at an exercise price of \$17.47 per share with an expiration date of May 6, 2024. In November 2022, warrants were exercised to purchase 50,000 shares of common stock at an exercise price of \$8.75 per share for total proceeds of \$0.4 million.

10. Stock-Based Compensation

2019 Stock Incentive Plan

The 2019 Stock Incentive Plan (the "2019 Plan") provides for the grant of incentive stock options, nonqualified stock options, stock appreciation rights, restricted stock, restricted stock units, unrestricted stock, unrestricted stock units, and other stock-based awards to employees, directors, and consultants of the Company and its subsidiaries. The number of shares of common stock of TransMedics Group initially available for issuance under the 2019 Plan was 3,428,571 shares, plus the number of shares underlying awards under the previously outstanding 2014 Stock Incentive Plan (the "2014 Plan"), not to exceed 1,595,189 shares, that expire or are terminated, surrendered, or cancelled without the delivery of shares, are forfeited to or repurchased by TransMedics Group or otherwise become available again for grant. Since the effectiveness of the Company's 2019 Plan in April 2019, no awards have been made or will be made under the 2014 Plan.

Shares withheld in payment of the exercise or purchase price of an award or in satisfaction of tax withholding requirements, and the shares covered by a stock appreciation right for which any portion is settled in stock, will reduce the number of shares available for issuance under the 2019 Plan. In addition, the number of shares available for issuance under the 2019 Plan (i) will not be increased by any shares delivered under the 2019 Plan that are subsequently repurchased using proceeds directly attributable to stock option exercises and (ii) will not be reduced by any awards that are settled in cash or that expire, become unexercisable, terminate or are forfeited to or repurchased by TransMedics Group without the issuance of stock under the 2019 Plan. On May 25, 2023, the shareholders of the Company approved the Amended and Restated TransMedics Group, Inc. 2019 Stock Incentive Plan (the "Amended Plan") to among other things, (i) increase the number of shares of the Company's common stock available for issuance thereunder by 1,000,000 shares, (ii) prohibit the payment of dividend or dividend equivalents on a current basis with respect to unvested awards, (iii) extend the expiration date of the Amended Plan until June 1, 2033 and (iv) increase the annual limits on non-employee director compensation. As of December 31, 2023, 1,359,742 shares of common stock were available for issuance under the Amended Plan.

2021 Inducement Plan

In August 2021, the Company's board of directors approved the TransMedics Group, Inc. Inducement Plan (the "Inducement Plan"). Pursuant to the terms of the Inducement Plan, the Company may grant nonqualified stock options, stock appreciation rights, restricted stock, unrestricted stock, restricted stock unit awards and performance awards to individuals who were not previously employees or directors of the Company or individuals returning to employment after a bona fide period of non-employment with the Company. A total of 1,000,000 shares of the Company's common stock were initially available for issuance under the Inducement Plan. On November 2, 2023, the Company's board of directors approved an increase of 500,000 to shares available under the Inducement Plan. As of December 31, 2023, 607,366 shares of common stock remained available for issuance under the Inducement Plan.

Awards granted under the 2019 Plan and Inducement Plan vest over periods determined by the board of directors and expire no longer than ten years from the date of the grant. The exercise price for stock options granted is not less than the fair value of common shares based on quoted market prices.

2019 Employee Stock Purchase Plan

Pursuant to the Company's 2019 Employee Stock Purchase Plan (the "2019 ESPP"), certain employees of the Company are eligible to purchase common stock of the Company at a reduced price during offering periods. The 2019 ESPP permits participants to purchase common stock using funds contributed through payroll deductions, subject to the limitations set forth in the Internal Revenue Code, at a purchase price of 85% of the lower of the closing price of the Company's common stock on the first trading day of the offering period or the closing price on the applicable purchase date, which is the final trading day of the applicable offering period. A total of 371,142 shares of common stock of TransMedics Group were initially reserved for issuance under the 2019 ESPP. During the year ended December 31, 2023, 25,894 shares were issued under the 2019 ESPP and as of December 31, 2023, 264,559 shares remained available for issuance.

Stock Option Valuation

The fair value of stock option grants is estimated using the Black-Scholes option-pricing model. Because there had been no public market for the Company's common stock prior to the Company's initial public offering, there is limited Company-specific historical and implied volatility data. Accordingly, the Company bases its estimates of expected volatility on a combination of the Company's own historical volatility and historical volatility of a group of publicly-traded companies with similar characteristics to itself. For options with service-based vesting conditions, the expected term of the Company's stock options has been determined utilizing the "simplified" method for awards that qualify as "plain-vanilla" options. The risk-free interest rate is determined by reference to the U.S. Treasury yield curve in effect at the time of grant of the award for time periods approximately equal to the expected term of the award. Expected dividend yield is based on the fact that the Company has never paid cash dividends and does not expect to pay any cash dividends in the foreseeable future.

The following table presents, on a weighted average basis, the assumptions used in the Black-Scholes option-pricing model to determine the grant-date fair value of stock options granted to employees and directors:

	Year Ended December 31,		
	2023	2022	2021
Risk-free interest rate	4.15%	2.33%	0.90%
Expected term (in years)	6.03	6.03	6.03
Expected volatility	69%	59%	58%
Expected dividend yield	0%	0%	0%

The following table summarizes the Company's option activity since December 31, 2022:

	Number of Shares	Weighted Average Exercise Price	Weighted Average Contractual Term (in years)	Aggregate Intrinsic Value (in thousands)
Outstanding as of December 31, 2022	3,288,791	\$ 21.56	7.86	\$ 132,076
Granted	639,045	64.37		
Exercised	(493,935)	12.46		
Forfeited	(143,913)	34.14		
Expired	(937)	30.57		
Outstanding as of December 31, 2023	<u>3,289,051</u>	\$ 30.69	7.52	\$ 159,343
Vested and expected to vest as of				
December 31, 2023	3,289,051	\$ 30.69	7.52	\$ 159,343
Options exercisable as of December 31, 2023	1,920,240	\$ 23.78	6.84	\$ 105,898

The aggregate intrinsic value of stock options is calculated as the difference between the exercise price of the stock options and the fair value of the Company's common stock for those stock options that had exercise prices lower than the fair value of the Company's common stock. The aggregate intrinsic value of stock options exercised during the years ended December 31, 2023, 2022 and 2021, was \$31.0 million, \$15.0 million and \$16.3 million, respectively. The weighted average grant-date fair

value of stock options granted during the years ended December 31, 2023, 2022 and 2021 was \$41.75 per share, \$11.32 per share and \$18.63 per share, respectively.

The Company has not granted any stock-based awards with performance-based vesting conditions.

Restricted Common Stock

Shares of unvested restricted common stock may not be sold or transferred by the holder. If the holder's service to the Company and its affiliates ceases for any reason, unvested shares of restricted common stock held by these individuals will immediately be forfeited for no consideration, as provided in the individual restricted stock agreements.

The following table summarizes the Company's restricted common stock activity since December 31, 2022:

	Shares	Weighted Average Grant-Date Fair Value
Unvested restricted common stock as of December 31, 2022	24,315	\$ 28.79
Issued	10,304	72.75
Vested	(24,315)	28.79
Forfeited	(698)	71.60
Unvested restricted common stock as of December 31, 2023	<u>9,606</u>	<u>\$ 72.83</u>

The aggregate fair value of restricted stock that vested during the year ended December 31, 2023 was \$1.7 million. There was no restricted stock vesting during the years ended December 31, 2022 or 2021. The Company granted restricted common stock during the year ended December 31, 2022 with a weighted average grant-date fair value of \$28.74 per share. The Company did not grant restricted common stock during the year ended December 31, 2021.

Restricted Common Stock Units

The following table summarizes the Company's restricted common stock unit activity since December 31, 2022:

	Shares	Weighted Average Grant-Date Fair Value
Unvested restricted stock units as of December 31, 2022	—	\$ —
Granted	357,594	63.74
Vested	—	—
Forfeited	(29,228)	56.53
Unvested restricted stock units as of December 31, 2023	<u>328,366</u>	<u>\$ 64.38</u>

The Company did not grant restricted common stock units during the years ended December 31, 2022 or 2021.

Stock-Based Compensation

The Company recorded stock-based compensation expense in the following expense categories of its consolidated statements of operations (in thousands):

	Year Ended December 31,		
	2023	2022	2021
Cost of revenue	\$ 438	\$ 125	\$ 72
Research, development and clinical trials expenses	2,823	1,465	1,114
Selling, general and administrative expenses	16,530	8,731	5,692
	<u>\$ 19,791</u>	<u>\$ 10,321</u>	<u>\$ 6,878</u>

As of December 31, 2023, total unrecognized compensation cost related to unvested share-based awards was \$48.6 million, which is expected to be recognized over a weighted-average period of 2.4 years.

11. Income Taxes

Tax Provision Components

During the years ended December 31, 2023, 2022 and 2021, the Company recorded no income tax benefits for the net operating losses incurred or for the research and development tax credits generated in each year in the United States, due to the uncertainty regarding the realizability of these respective deferred tax assets. The Company generated income in the Netherlands for the years ended December 31, 2023, 2022 and 2021 and, accordingly, recorded a foreign income tax provision of less than \$0.1 million, \$0.1 million and less than \$0.1 million for the years ended December 31, 2023, 2022 and 2021, respectively.

The Company recorded a tax benefit of \$1.7 million for the release of a portion of its valuation allowance related to the net deferred tax liabilities recorded in purchase accounting during the year ended December 31, 2023. As part of the allocation of the purchase price of Summit, the Company recorded deferred tax liabilities for the differences between the fair value recognized in purchase accounting and the tax basis of property, plant and equipment and intangible assets. The net deferred tax liability is a source of income to support the recognition of a portion of its existing deferred tax assets. Therefore, the Company released the same amount of its valuation allowance. The Company maintains a valuation allowance on its overall net deferred tax asset as it deems it more likely than not that the net deferred tax asset will not be realized.

Loss Before Income Taxes

The domestic and foreign components of loss before income taxes were as follows (in thousands):

	Year Ended December 31,		
	2023	2022	2021
United States	\$ (27,038)	\$ (36,416)	\$ (44,321)
Foreign	367	251	142
	<u>\$ (26,671)</u>	<u>\$ (36,165)</u>	<u>\$ (44,179)</u>

A reconciliation of the U.S. federal statutory income tax rate to the Company's effective income tax rate is as follows:

	Year Ended December 31,		
	2023	2022	2021
Federal statutory income tax rate	(21.0)%	(21.0)%	(21.0)%
State taxes, net of federal benefit	(7.1)%	(5.4)%	(6.9)%
Federal and state research and development tax credits	(10.2)%	(5.4)%	(2.4)%
State deferred tax adjustment	(27.5)%	—	—
Nondeductible items	1.2%	0.7%	0.1%
Stock-based compensation expense	(5.7)%	(3.5)%	(3.3)%
Deferred tax effect of change in state blended rate	(5.9)%	16.2%	(1.7)%
Return to provision	(1.5)%	2.6%	1.1%
Other	(0.1)%	0.1%	(0.2)%
Change in deferred tax asset valuation allowance	71.6%	15.8%	34.3%
Effective income tax rate	<u>(6.2)%</u>	<u>0.1%</u>	<u>0.0%</u>

Net deferred tax assets consisted of the following (in thousands):

	December 31,	
	2023	2022
Deferred tax assets:		
Net operating loss carryforwards	\$ 99,332	\$ 92,445
Capitalized research and development expense	14,062	8,109
Acquired in-process research and development expenses	7,275	—
Research and development tax credit carryforwards	16,195	13,565
Accrued expenses	5,657	2,994
Stock-based compensation expense	6,704	3,492
Lease liability	2,600	2,218
Section 163(j) interest	191	754
Other	400	483
Total deferred tax assets	152,416	124,060
Deferred tax liabilities:		
Property, plant and equipment	(9,055)	(885)
Right-of-use assets	(1,721)	(1,284)
Intangible assets	(654)	—
Total deferred tax liabilities	(11,430)	(2,169)
Valuation allowance	(140,986)	(121,891)
Net deferred tax assets	\$ —	\$ —

As of December 31, 2023, the Company had federal net operating loss carryforwards of \$376.4 million, which may be available to offset future taxable income, of which \$207.4 million of the total net operating loss carryforwards expire at various dates beginning in 2024, while the remaining \$169.0 million do not expire but are limited in their usage to an annual deduction equal to 80% of annual taxable income. As of December 31, 2023, the Company had state net operating loss carryforwards of \$328.8 million, which may be available to offset future taxable income and expire at various dates beginning in 2030. As of December 31, 2023, the Company also had U.S. federal and state research and development tax credit carryforwards of \$10.7 million and \$6.5 million, respectively, which may be available to offset future tax liabilities and begin to expire in 2024. As of December 31, 2023, the Company had no foreign net operating loss carryforwards.

Utilization of the U.S. federal and state net operating loss carryforwards and research and development tax credit carryforwards may be subject to a substantial annual limitation under Sections 382 and 383 of the Internal Revenue Code of 1986, and corresponding provisions of state law, due to ownership changes that have occurred previously or that could occur in the future. These ownership changes may limit the amount of carryforwards that can be utilized annually to offset future taxable income or tax liabilities. In general, an ownership change, as defined by Section 382, results from transactions increasing the ownership of certain stockholders or public groups in the stock of a corporation by more than 50% over a three-year period. The Company has not conducted a study to assess whether a change of control has occurred or whether there have been multiple changes of control since inception due to the significant complexity and cost associated with such a study. If the Company has experienced a change of control, as defined by Section 382, at any time since inception, utilization of the net operating loss carryforwards or research and development tax credit carryforwards would be subject to an annual limitation under Section 382, which is determined by first multiplying the value of the Company's stock at the time of the ownership change by the applicable long-term tax-exempt rate, and then could be subject to additional adjustments, as required. Any limitation may result in expiration of a portion of the net operating loss carryforwards or research and development tax credit carryforwards before utilization. Further, until a study is completed by the Company and any limitation is known, no amounts are being presented as an uncertain tax position.

As required by Accounting Standard Codification 740, management of the Company has evaluated the positive and negative evidence bearing upon the realizability of its deferred tax assets, which are comprised principally of net operating loss carryforwards. Management has determined that it is more likely than not that the Company will not recognize the benefits of federal and state deferred tax assets and, as a result, a valuation allowance has been recorded.

As of December 31, 2023 and 2022, the Company had no accrued interest or penalties related to uncertain tax positions and no amounts had been recognized in the Company's consolidated statements of operations. The Company's policy is to record any interest or penalties related to income taxes as part of the income tax provision.

The Company generated research credits for the tax years ending after December 31, 2001 but has not conducted a study to document qualified activities. This study may result in an adjustment to the Company's research and development carryforwards; however, until a study is completed and any adjustment is known, no amounts are being presented as an unrecognized tax benefit for the year ended December 31, 2023. A full valuation allowance has been provided against the Company's research and development credits and, if an adjustment is required, this adjustment would be offset by an adjustment to the deferred tax asset established for the research credit carryforward and the valuation allowance.

The Company files income tax returns as prescribed by the tax laws of the jurisdictions in which it operates. In the normal course of business, the Company is subject to examination by federal and state jurisdictions, where applicable. There are currently no pending federal or state tax examinations. The Company has open tax years subject to examination from fiscal year 2020 to present. To the extent that the Company has carryforward attributes, the tax years in which the attribute was generated may still be adjusted upon examination by federal, state or local tax authorities if they either have been or will be used in the future.

Changes in the valuation allowance for deferred tax assets during the year ended December 31, 2023 related primarily to current year federal and state net operating losses generated, acquired IPR&D and capitalized research and development costs. Changes in the valuation allowance for deferred tax assets during the year ended December 31, 2022 related primarily to the capitalization of research and development costs required under Section 174 and current year federal and state net operating losses generated, partially offset by a decrease in deferred tax assets related to state net operating loss carryforwards due to a change in the state effective tax rate. Changes in the valuation allowance for deferred tax assets during the year ended December 31, 2021 related primarily to the increase in net operating loss carryforwards in 2021. The changes in the valuation allowance were as follows (in thousands):

	Year Ended December 31,		
	2023	2022	2021
Valuation allowance as of beginning of year	\$ (121,891)	\$ (116,164)	\$ (101,029)
Decreases recorded as benefit to income tax provision	—	—	—
Increases recorded to income tax provision	(19,095)	(5,727)	(15,135)
Valuation allowance as of end of year	<u>\$ (140,986)</u>	<u>\$ (121,891)</u>	<u>\$ (116,164)</u>

12. Leases

The Company leases its office, laboratory and manufacturing space under two noncancelable leases that expire in December 2027 and include a lease incentive, fixed payment escalations, and rent holidays. The leases include an option to renew for an additional five years. The option to extend the lease term was not included in the right-of-use asset and the lease liability as it was not reasonably certain of being exercised. The Company classified the leases as operating leases under ASC 842. Annual base rent increases at an average rate of 2.5% each year until the end of the term. The Company is also obligated to pay the landlord certain costs, taxes, and operating expenses, subject to certain exclusions. As these costs are generally variable in nature, they are not included in the measurement of the right-of-use asset and related lease liability. In June 2023, the Company amended one of its lease agreements to add space through the remainder of the lease term and under the existing terms of the lease.

In connection with the acquisition of Summit, the Company acquired a 20-year operating lease with one 10-year renewal option, for space at the Bozeman Yellowstone International Airport in Bozeman, Montana where the Company is constructing a commercial aircraft hangar (see Note 3). The Company also leases office space for its NOP and hangar space for its aircraft at various locations in the United States under short-term leases.

The components of the Company's lease expense under ASC 842 are as follows (in thousands):

	Year Ended December 31,		
	2023	2022	2021
Operating lease cost	\$ 1,692	\$ 1,353	\$ 1,353
Short-term lease cost	1,606	806	159
Variable lease cost	1,495	718	640
	<u>\$ 4,793</u>	<u>\$ 2,877</u>	<u>\$ 2,152</u>

Supplemental disclosure of cash flow information related to the leases were as follows (in thousands):

	Year Ended December 31,		
	2023	2022	2021
Cash paid for amounts included in the measurement of operating lease liabilities	\$ 2,246	\$ 1,948	\$ 1,901

The weighted-average remaining lease term as of December 31, 2023 and 2022 was 4.7 years and 5.0 years, respectively. The weighted-average discount rate as of December 31, 2023 and 2022 was 6.9% and 6.7%, respectively. Because the interest rate implicit in the leases was not readily determinable, the Company's estimated incremental borrowing rate was used to calculate the present value of the leases. In determining its incremental borrowing rate, the Company considered its credit quality and assessed interest rates available in the market for similar borrowings, adjusted for the impact of collateral over the term of the leases.

Future payments for the Company's operating lease liabilities as of December 31, 2023 are as follows (in thousands):

<u>Year Ending December 31,</u>		
2024		\$ 2,638
2025		2,704
2026		2,771
2027		2,839
2028		25
Thereafter		610
Total future minimum lease payments		11,587
Less: imputed interest		(1,845)
Total operating lease liabilities		<u>\$ 9,742</u>

The following table represents operating lease liabilities on the consolidated balance sheets (in thousands):

	<u>December 31, 2023</u>
Current operating lease liabilities	\$ 2,035
Operating lease liabilities, net of current portion	7,707
Total operating lease liabilities	<u>\$ 9,742</u>

13. Commitments and Contingencies

401(k) Savings Plan

The Company has a defined-contribution savings plan under Section 401(k) of the Internal Revenue Code. This plan covers substantially all employees who meet minimum age and service requirements and allows participants to defer a portion of their annual compensation on a pre-tax basis. As of December 31, 2022, the Company had not made any contributions to the plan. Effective January 1, 2023, the Company instituted an employer matching program for the 401(k) Plan pursuant to which the Company will match 100% of the first 3% of each participating employee's eligible compensation contributed to the plan and 50% of up to an additional 2% each participating employee's eligible compensation contributed to the plan. For the year ended December 31, 2023, the Company recorded expense of \$1.4 million related to these matching contributions.

Indemnification Agreements

In the ordinary course of business, the Company has agreed to defend and indemnify its customers against third-party claims asserting infringement of certain intellectual property rights, which may include patents, copyrights, trademarks, or trade secrets. The Company's exposure under these indemnification provisions is generally limited to the total amount paid by the end-customer under the agreement. However, certain agreements include indemnification provisions that could potentially expose the Company to losses in excess of the amount received under the agreement. In the ordinary course of business, the Company may provide indemnification of varying scope and terms to vendors, lessors, business partners, and other parties with respect to certain matters including, but not limited to, losses arising out of breach of such agreements or from intellectual property infringement claims made by third parties. In addition, the Company has entered into indemnification agreements with members of its board of directors that will require the Company, among other things, to indemnify them against certain liabilities that may arise by reason of their status or services as directors or officers.

The maximum potential amount of future payments the Company could be required to make under these indemnification agreements is, in many cases, unlimited. To date, the Company has not incurred any material costs as a result of such indemnifications. The Company is not currently aware of any indemnification claims and had not accrued any liabilities related to such obligations in its consolidated financial statements as of December 31, 2023 and 2022.

Unconditional Purchase Commitment

In January 2021, the Company entered into an unconditional \$9.5 million purchase commitment, in the ordinary course of business, for goods with specified annual minimum quantities to be purchased through December 2029. The contract is not cancellable without penalty. The remaining purchase commitment as of December 31, 2023 was \$7.0 million.

Legal Proceedings

The Company is not currently party to any material legal proceedings. At each reporting date, the Company evaluates whether or not a potential loss amount or a potential range of loss is probable and reasonably estimable under the provisions of the authoritative guidance that addresses accounting for contingencies. The Company expenses as incurred the costs related to such legal proceedings.

14. Revenue

The Company has determined that the payments made to the customer for reimbursement of clinical trial materials and customer's costs incurred to execute specific clinical trial protocols related to the Company's OCS products do not provide the Company with a distinct good or service transferred by the customer, and therefore such payments are recorded as a reduction of revenue from the customer in the Company's consolidated statements of operations. The Company records the reduction of revenue in the same period as the revenue is recognized and records a corresponding accrual for its estimate of the payments. As clinical trials reach the closeout phase, the Company updates its accrual estimates with corresponding adjustments to revenue. The Company will continue to update its clinical trial accrual estimates as information related to clinical trial payments is received.

The reconciliation of gross product revenue to net product revenue for these certain payments is shown below (in thousands):

	Year Ended December 31,		
	2023	2022	2021
Gross product revenue from sales to customers	\$ 176,047	\$ 77,854	\$ 30,780
Less: clinical trial payments	(22)	(1,380)	1,123
Total net product revenue	\$ 176,069	\$ 79,234	\$ 29,657

The Company determined that payments made to customers to obtain information related to post-approval studies or existing standard-of-care protocols (i.e., unrelated to the Company's OCS products) meet the criteria to be classified as a cost because the Company receives a distinct good or service transferred by the customer separate from the customer's purchase of the Company's OCS products and the consideration paid to the customer represents the fair value of the distinct good or service received. As a result, such payments made to the customers are recorded as operating expenses. The Company recorded payments made to customers related to post-approval studies and for documentation related to existing standard-of-care protocols of \$0.9 million, \$1.0 million and \$2.1 million for the years ended December 31, 2023, 2022 and 2021, respectively, as operating expenses.

Summit makes payments to its aircraft management customers who had opted in to Summit's charter program. Summit pays the aircraft owner a fee for the use of the aircraft for charter flight services. The Company determined that fees incurred for the use of aircraft management customers' aircraft meet the criteria to be classified as a cost because the Company receives a distinct good or service transferred by the customer separate from the customer's purchase of Summit's aircraft management services and the consideration to the customer represents the fair value of the distinct good or service received. As a result, such fees are recorded as cost of sales. The Company recorded expense for the use of customers' aircraft of \$1.1 million for the year ended December 31, 2023. As part of the Summit integration, Summit's legacy aircraft management customers are being transitioned to third parties and following this transition, the Company will no longer make such payments to customers.

Disaggregated Revenue

The Company disaggregates revenue from contracts with customers related to OCS transplant by organ type and geographical area as it believes this presentation best depicts how the nature, amount, timing and uncertainty of the Company's revenue and cash flows are affected by economic factors, as shown below (in thousands):

	Year Ended December 31,		
	2023	2022	2021
OCS Transplant Revenue by country by organ(1)(2):			
United States			
Lung total revenue	\$ 10,548	\$ 7,967	\$ 9,843
Heart total revenue	59,080	29,902	10,103
Liver total revenue	151,719	46,169	1,915
Total United States OCS transplant revenue	221,347	84,038	21,861
All other countries			
Lung revenue	1,272	880	822
Heart revenue	14,012	8,451	7,579
Liver revenue	104	90	—
Total all other countries OCS transplant revenue	15,388	9,421	8,401
Total OCS transplant revenue	<u>\$ 236,735</u>	<u>\$ 93,459</u>	<u>\$ 30,262</u>

- (1) Revenue by country is categorized based on the location of the end customer. Total revenue includes product and service revenue.
- (2) Service revenue unrelated to OCS transplant, which was \$4.9 million for the year December 31, 2023, is not included in this table.

15. Related Party Transactions

Employment of Dr. Amira Hassanein

Dr. Amira Hassanein, who serves as Product Director for the Company's OCS Lung program, is the sister of Dr. Waleed Hassanein, the Company's President, Chief Executive Officer and a member of the Company's board of directors. The Company paid Dr. Amira Hassanein \$0.4 million in total compensation in each of the years ended December 31, 2023, 2022 and 2021, respectively, for her services as an employee.

16. Subsequent Events

In separate transactions in January 2024 and February 2024, the Company acquired two fixed-wing aircraft from two separate sellers for a total purchase price of \$26.6 million. The Company plans to utilize these aircraft as part of the NOP's aviation transportation services.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.

None

Item 9A. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our President and Chief Executive Officer and our Chief Financial Officer (our principal executive officer and principal financial and accounting officer, respectively), evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2023. The term “disclosure controls and procedures,” as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company’s management, including its principal executive and principal financial officers, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure.

Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of our disclosure controls and procedures as of December 31, 2023, our President and Chief Executive Officer and our Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

Internal Control Over Financial Reporting

Management’s Annual Report on Internal Control over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rule 13a-15(f) and 15d-15(f) promulgated under the Exchange Act as a process designed by, or under the supervision of, our principal executive and principal financial officers and effected by our board of directors, management and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with GAAP.

Internal control over financial reporting includes policies and procedures that: (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect transactions and disposition of assets; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with GAAP, and that receipts and expenditures are being made only in accordance with the authorization of its management and directors; and (3) provide reasonable assurance regarding the prevention or timely detection of unauthorized acquisition, use, or disposition of our assets that could have a material effect on its financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of the effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies and procedures included in such controls may deteriorate.

Our management conducted an assessment of the effectiveness of our internal control over financial reporting as of December 31, 2023 based on the criteria described in “Internal Control-Integrated Framework” (2013) issued by the Committee of Sponsoring Organization of the Treadway Commission. Based on this assessment, management concluded that, as of December 31, 2023, our internal control over financial reporting was effective.

We have excluded Summit Aviation, Inc. and its affiliated entity, Northside Property Group, LLC, or together Summit (“Summit”) from our assessment of the effectiveness of internal control over financial reporting as of December 31, 2023, because it was acquired in a purchase business combination during 2023. The total assets and total revenue of Summit, which is a wholly-owned subsidiary, that are excluded from our assessment of internal control over financial reporting collectively represent approximately 2% and 2%, respectively, of the related consolidated financial statement amounts as of and for the year ended December 31, 2023.

The effectiveness of our internal control over financial reporting as of December 31, 2023 has been audited by PricewaterhouseCoopers, LLP, an independent registered public accounting firm, as stated in their report which is included herein.

Changes in Internal Control over Financial Reporting

No change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) occurred during the three months ended December 31, 2023 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information.

During our fiscal quarter ended December 31, 2023, one of our directors entered into a contract, instruction or written plan for the purchase or sale of our securities that is intended to satisfy the conditions specified in Rule 10b5-1(c) under the Exchange Act for an affirmative defense against liability for trading in securities on the basis of material nonpublic information. We refer to these contracts, instructions, and written plans as “Rule 10b5-1 trading plans” and each one as a “Rule 10b5-1 trading plan.”

We describe the material terms of this Rule 10b5-1 trading plan in the table below.

Rule 10b5-1 Trading Plans

Director/Officer	Action and Date of Action	Commencement of Trading Period	Scheduled Termination of Trading Period ⁽¹⁾	Security Covered	Maximum Number of Securities to be Purchased or Sold Pursuant to the Rule 10b5-1 Trading Plan ⁽²⁾	Covers Purchase Or Sale
James Tobin, Chairman of the Board of Directors	Adoption 21-Nov-23	20-Feb-24	30-Dec-24	Common Stock	40,445	Sale

- (1) The plan is subject to earlier termination under certain circumstances specified in the plan, including upon the sale or purchase (as applicable) of all shares subject to the plan and upon either party to a plan giving notice of termination within the time prescribed under the plan.
- (2) Subject to adjustments for stock splits, stock combinations, stock dividends and other similar changes to our common stock.

Item 9C. Disclosures Regarding Foreign Jurisdictions that Prevent Inspections.

Not applicable.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

The information required by this Item 10 will be included in our Definitive Proxy Statement to be filed with the Securities and Exchange Commission, or SEC, with respect to our 2024 Annual Meeting of Stockholders and is incorporated herein by reference.

Item 11. Executive Compensation.

The information required by this Item 11 will be included in our Definitive Proxy Statement to be filed with the Securities and Exchange Commission, or SEC, with respect to our 2024 Annual Meeting of Stockholders and is incorporated herein by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

The information required by this Item 12 will be included in our Definitive Proxy Statement to be filed with the Securities and Exchange Commission, or SEC, with respect to our 2024 Annual Meeting of Stockholders and is incorporated herein by reference.

Item 13. Certain Relationships and Related Transactions, and Director Independence.

The information required by this Item 13 will be included in our Definitive Proxy Statement to be filed with the Securities and Exchange Commission, or SEC, with respect to our 2024 Annual Meeting of Stockholders and is incorporated herein by reference.

Item 14. Principal Accounting Fees and Services.

The information required by this Item 14 will be included in our Definitive Proxy Statement to be filed with the Securities and Exchange Commission, or SEC, with respect to our 2024 Annual Meeting of Stockholders and is incorporated herein by reference.

PART IV

Item 15. Exhibits, Financial Statement Schedules.

(1) Financial Statements

The following documents are included on pages 82 through 113 attached hereto and are filed as part of this Annual Report on Form 10-K.

	Page
Report of Independent Registered Public Accounting Firm	83
Consolidated Balance Sheets.....	85
Consolidated Statements of Operations.....	86
Consolidated Statements of Comprehensive Loss.....	87
Consolidated Statements of Stockholders' Equity	88
Consolidated Statements of Cash Flows	89
Notes to Consolidated Financial Statements	90

(2) Financial Statement Schedules:

All financial statement schedules have been omitted because they are not applicable, not required or the information required is shown in the financial statements or the notes thereto.

(3) Exhibits.

The following is a list of exhibits filed as part of this Annual Report on Form 10-K.

Exhibit Number	Description
3.1	Restated Articles of Organization (incorporated by reference to Exhibit 3.1 to the Registrant's Annual Report on Form 10-K (File No. 001-38891) filed with the SEC on March 17, 2020)
3.2	Second Amended and Restated Bylaws (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K (File No. 001-38891) filed with the SEC on November 4, 2022)
4.1	Specimen stock certificate evidencing shares of common stock (incorporated by reference to Exhibit 4.1 to the Registrant's Registration Statement on Form S-1 (File No. 333-230736) filed with the SEC on April 5, 2019).
4.3	Warrant Agreement to Purchase Preferred Stock, dated as of September 11, 2015, between the Registrant and Hercules Technology Growth Capital, Inc. (incorporated by reference to Exhibit 4.3 to the Registrant's Registration Statement on Form S-1 (File No. 333-230736) filed with the SEC on April 5, 2019)
4.4	Warrant Agreement to Purchase Preferred Stock, dated as of August 4, 2016, between the Registrant and Hercules Technology Growth Capital, Inc. (incorporated by reference to Exhibit 4.4 to the Registrant's Registration Statement on Form S-1 (File No. 333-230736) filed with the SEC on April 5, 2019)
4.5	Description of Registered Securities (incorporated by reference to Exhibit 4.5 to the Registrant's Annual Report on Form 10-K (File No. 001-38891) filed with the SEC on March 17, 2020)
4.6	Indenture, dated as of May 11, 2023, by and between TransMedics Group, Inc. and U.S. Bank Trust Company, National Association (including the form of the 1.50% Convertible Senior Note due 2028) (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K (File No. 001-38891) filed with the SEC on May 11, 2023).
4.7	Form of Note (included in Exhibit 4.1) (incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K (File No. 001-38891) filed with the SEC on May 11, 2023).
10.1	Ninth Amended and Restated Investor Rights Agreement, dated as of May 6, 2019, by and among TransMedics Group, Inc., TransMedics, Inc. and the shareholders party thereto (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (File No. 001-38891) filed with the SEC on May 1, 2019)

- 10.2 Form of Indemnification Agreement between the Registrant and each of its directors and executive officers (incorporated by reference to Exhibit 10.2 to the Registrant's Registration Statement on Form S-1 (File No. 333-230736) filed with the SEC on April 5, 2019)
- 10.3# Amended and Restated 2004 Stock Incentive Plan (incorporated by reference to Exhibit 10.3 to the Registrant's Registration Statement on Form S-1 (File No. 333-230736) filed with the SEC on April 5, 2019)
- 10.4# Form of Incentive Stock Option Agreement under 2004 Stock Incentive Plan (incorporated by reference to Exhibit 10.4 to the Registrant's Registration Statement on Form S-1 (File No. 333-230736) filed with the SEC on April 5, 2019)
- 10.5# Amended and Restated 2014 Stock Incentive Plan (incorporated by reference to Exhibit 10.5 to the Registrant's Registration Statement on Form S-1 (File No. 333-230736) filed with the SEC on April 5, 2019)
- 10.6# Form of Incentive Stock Option Agreement under 2014 Stock Incentive Plan (incorporated by reference to Exhibit 10.6 to the Registrant's Registration Statement on Form S-1 (File No. 333-230736) filed with the SEC on April 5, 2019)
- 10.7# Form of Non-Qualified Stock Option Agreement under 2014 Stock Incentive Plan (incorporated by reference to Exhibit 10.7 to the Registrant's Registration Statement on Form S-1 (File No. 333-230736) filed with the SEC on April 5, 2019)
- 10.8# Form of Restricted Stock Agreement under 2014 Stock Incentive Plan (incorporated by reference to Exhibit 10.8 to the Registrant's Registration Statement on Form S-1 (File No. 333-230736) filed with the SEC on April 5, 2019)
- 10.9# 2019 Stock Incentive Plan (incorporated by reference to Exhibit 10.9 to the Registrant's Registration Statement on Form S-1 (File No. 333-230736) filed with the SEC on April 22, 2019)
- 10.10# Form of Incentive Stock Option Agreement under 2019 Stock Incentive Plan (incorporated by reference to Exhibit 10.10 to the Registrant's Registration Statement on Form S-1 (File No. 333-230736) filed with the SEC on April 22, 2019)
- 10.11# Form of Non-Statutory Stock Option Agreement under 2019 Stock Incentive Plan (incorporated by reference to Exhibit 10.11 to the Registrant's Registration Statement on Form S-1 (File No. 333-230736) filed with the SEC on April 22, 2019)
- 10.12# Form of Restricted Stock Unit Award under 2019 Stock Incentive Plan (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (File No. 001-38891) filed with the SEC on February 24, 2023).
- 10.13# 2019 Employee Stock Purchase Plan (incorporated by reference to Exhibit 10.12 to the Registrant's Registration Statement on Form S-1 (File No. 333-230736) filed with the SEC on April 22, 2019)
- 10.14# 2019 Cash Incentive Plan (incorporated by reference to Exhibit 10.13 to the Registrant's Registration Statement on Form S-1 (File No. 333-230736) filed with the SEC on April 22, 2019)
- 10.15# TransMedics Group, Inc. Inducement Plan (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (File No. 001-38891) filed with the SEC on August 9, 2021)
- 10.16# Form of Inducement Restricted Stock Unit Award (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K (File No. 001-38891) filed with the SEC on February 24, 2023).
- 10.17# Executive Retention Agreement, dated as of November 15, 2007, by and among the Registrant and Waleed H. Hassanein, M.D. (incorporated by reference to Exhibit 10.14 to the Registrant's Registration Statement on Form S-1 (File No. 333-230736) filed with the SEC on April 5, 2019)
- 10.18# Executive Retention Agreement, dated as of November 15, 2007, by and among the Registrant and Tamer I. Khayal, M.D. (incorporated by reference to Exhibit 10.15 to the Registrant's Registration Statement on Form S-1 (File No. 333-230736) filed with the SEC on April 5, 2019)
- 10.19# Executive Retention Agreement, dated as of March 23, 2015, by and among the Registrant and Stephen Gordon (incorporated by reference to Exhibit 10.16 to the Registrant's Registration Statement on Form S-1 (File No. 333-230736) filed with the SEC on April 5, 2019)

- 10.20 Lease Agreement, dated as of June 25, 2004, between the Registrant and 200 Minuteman Limited Partnership (incorporated by reference to Exhibit 10.17 to the Registrant's Registration Statement on Form S-1 (File No. 333-230736) filed with the SEC on April 5, 2019)
- 10.21 First Amendment to Lease, dated as of September 28, 2004, between the Registrant and 200 Minuteman Limited Partnership (incorporated by reference to Exhibit 10.18 to the Registrant's Registration Statement on Form S-1 (File No. 333-230736) filed with the SEC on April 5, 2019)
- 10.22 Second Amendment to Lease, dated as of November 29, 2005, between the Registrant and 200 Minuteman Limited Partnership (incorporated by reference to Exhibit 10.19 to the Registrant's Registration Statement on Form S-1 (File No. 333-230736) filed with the SEC on April 5, 2019)
- 10.23 Third Amendment to Lease, dated as of June 12, 2006, between the Registrant and 200 Minuteman Limited Partnership (incorporated by reference to Exhibit 10.20 to the Registrant's Registration Statement on Form S-1 (File No. 333-230736) filed with the SEC on April 5, 2019)
- 10.24 Fourth Amendment to Lease, dated as of February 1, 2007, between the Registrant and 200 Minuteman Limited Partnership (incorporated by reference to Exhibit 10.21 to the Registrant's Registration Statement on Form S-1 (File No. 333-230736) filed with the SEC on April 5, 2019)
- 10.25 Fifth Amendment to Lease, dated as of April 30, 2010, between the Registrant and 200 Minuteman Limited Partnership (incorporated by reference to Exhibit 10.22 to the Registrant's Registration Statement on Form S-1 (File No. 333-230736) filed with the SEC on April 5, 2019)
- 10.26 Lease Agreement, dated as of June 25, 2004, between the Registrant and 30 Minuteman Limited Partnership (incorporated by reference to Exhibit 10.23 to the Registrant's Registration Statement on Form S-1 (File No. 333-230736) filed with the SEC on April 5, 2019)
- 10.27 Second Amendment to Lease, dated as of November 29, 2005, between the Registrant and 30 Minuteman Limited Partnership (incorporated by reference to Exhibit 10.24 to the Registrant's Registration Statement on Form S-1 (File No. 333-230736) filed with the SEC on April 5, 2019)
- 10.28 Third Amendment to Lease, dated as of April 30, 2010, between the Registrant and 30 Minuteman Limited Partnership (incorporated by reference to Exhibit 10.25 to the Registrant's Registration Statement on Form S-1 (File No. 333-230736) filed with the SEC on April 5, 2019)
- 10.29 Omnibus Amendment #1 to Lease Agreement, dated January 9, 2020, by and among the Company, Whetstone 200 Minuteman Park, LLC and Whetstone 30 Minuteman Park, LLC (incorporated by reference to Exhibit 10.26 to the Registrant's Annual Report on Form 10-K (File No. 001-38891) filed with the SEC on March 17, 2020)
- 10.30 Credit Agreement, dated as of July 25, 2022, by and among TransMedics Group, Inc., the lenders party thereto and Canadian Imperial Bank of Commerce, as administrative agent and collateral agent (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (File No. 001-38891) filed with the SEC on July 29, 2022)
- 10.31 First Amendment to Credit Agreement, dated as of May 8, 2023, by and among TransMedics Group, Inc., the lender party thereto and Canadian Imperial Bank of Commerce, as administrative agent (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (File No. 001-38891) filed with the SEC on May 9, 2023).
- 10.32 Second Amendment to Credit Agreement, dated as of June 23, 2023, by and among TransMedics Group, Inc., the lenders party thereto and Canadian Imperial Bank of Commerce, as administrative agent (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (File No. 001-38891) filed with the SEC on June 29, 2023).
- 10.33 Third Amendment to Credit Agreement, dated as of November 9, 2023, by and among TransMedics Group, Inc., the lenders party thereto and Canadian Imperial Bank of Commerce, as administrative agent (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (File No. 001-38891) filed with the SEC on November 13, 2023).
- 10.34*++ Assumption Agreement, dated as of December 22, 2023, by Summit Aviation, Inc. and Northside Property Group, LLC in favor of Canadian Imperial Bank of Commerce, as administrative agent and collateral agent for lenders party to the Credit Agreement, dated as of July 25, 2022, by and among TransMedics Group, Inc., the lenders party thereto and Canadian Imperial Bank of Commerce, as administrative agent.

- 10.35 Guarantee and Collateral Agreement, dated as of July 25, 2022, by and among TransMedics Group, Inc., TransMedics, Inc., TransMedics B.V. and Canadian Imperial Bank of Commerce (incorporated by reference to Exhibit 10.2 to the Registrant’s Current Report on Form 8-K (File No. 001-38891) filed with the SEC on July 29, 2022).
- 10.36+ Development and Supply Agreement dated as of May 24, 2005 by and between the Registrant and Fresenius Kabi AB (incorporated by reference to Exhibit 10.32 to the Registrant’s Registration Statement on Form S-1 (File No. 333-230736) filed with the SEC on April 5, 2019)
- 10.37+ Contract Manufacturing Agreement dated as of April 1, 2015 by and between the Registrant and Fresenius Kabi Austria GmbH (incorporated by reference to Exhibit 10.33 to the Registrant’s Registration Statement on Form S-1 (File No. 333-230736) filed with the SEC on April 5, 2019)
- 10.38+ Amendment to Executive Retention Agreement, be and between TransMedics, Inc. and Stephen Gordon, dated April 10, 2020 (incorporated by reference to the Registrant’s Current Report on Form 8-K (File No. 001-38891) filed with the SEC on April 13, 2020).
- 10.39 Omnibus Amendment #2 to Lease, dated as of June 1, 2020, by and among the Company and Whetstone 200 Minuteman Park, LLC and Whetstone 30 Minuteman Park, LLC (incorporated by reference to the Registrant’s Quarterly Report on Form 10-Q (File No. 001-38891) filed with the SEC on August 7, 2020).
- 10.40 Form of Call Option Transaction Confirmation (incorporated by reference to Exhibit 10.2 to the Registrant’s Current Report on Form 8-K (File No. 001-38891) filed with the SEC on May 11, 2023).
- 21.1* Subsidiaries of the Registrant
- 23.1* Consent of PricewaterhouseCoopers LLP, independent registered public accounting firm.
- 31.1* Certification of Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 31.2* Certification of Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 32.1** Certification of Principal Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- 32.2** Certification of Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- 97.1 TransMedics Group Inc. Policy for Recoupment of Incentive Compensation
- 101.INS* Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document
- 101.SCH* Inline XBRL Taxonomy Extension Schema with Embedded Linkbase Documents
- 104 Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

* Filed herewith.

** Furnished herewith.

Indicated a management or compensatory plan, contract or arrangement.

+ Confidential treatment has been granted as to certain portions, which portions have been omitted and submitted separately to the SEC.

++ Certain schedules (or similar attachments) have been omitted pursuant to Item 601(a)(5) or Item 601(b)(2) of Regulation S-K. The registrant agrees to furnish copies of such schedules (or similar attachments) to the U.S. Securities and Exchange Commission upon request.

Item 16. Form 10-K Summary.

None.

