Filed Pursuant to Rule 424(b)(5) Registration No. 333-233621

The information in this preliminary prospectus supplement and the accompanying prospectus is not complete and may be changed. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell these securities and are not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED NOVEMBER 19, 2019 PRELIMINARY PROSPECTUS SUPPLEMENT TO PROSPECTUS DATED SEPTEMBER 23, 2019

9,000,000 Shares



Class A Common Stock

We are offering 9,000,000 shares of our Class A common stock. Our Class A common stock is listed on The Nasdaq Capital Market under the symbol "ORGO." On November 18, 2019, the last reported sale price of our Class A common stock was \$7.79 per share.

Investing in our Class A common stock involves a high degree of risk. See "<u>Risk Factors</u>" beginning on page S-15 of this prospectus supplement and in the documents incorporated by reference into this prospectus supplement and the accompanying prospectus.

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

	Per Share	Total
Public offering price	\$	\$
Underwriting discounts and commissions(1)	\$	\$
Proceeds, before expenses, to us	\$	\$

(1) See "Underwriting" for a description of compensation payable to the underwriters and other fees payable in connection with this offering. Avista Capital Partners IV, L.P., Avista Capital Partners IV (Offshore), L.P. or one of their affiliates (collectively, the "Participating Stockholders") have indicated an interest in purchasing up to \$25.0 million of the shares in the offering contemplated by this prospectus supplement at the public offering price. Assuming a public offering price of \$7.79 per share, which is the last reported sale price of our Class A common stock as reported on the Nasdaq Capital Market on November 18, 2019, these stockholders would purchase an aggregate of up to approximately 3,209,242 shares in this offering based on these indications of interest. If these stockholders purchase shares in this offering, the underwriters will reimburse us for any such discounts and commissions payable with respect to such shares. The disclosure in the table does not give effect to the absence of the discounts and commissions with respect to any shares that may be sold to the Participating Stockholders.

Delivery of the shares of Class A common stock in this offering is expected to be made on or about , 2019.

Avista Capital Partners IV, L.P. and Avista Capital Partners IV (Offshore), L.P. have indicated an interest to purchase up to an aggregate of \$25.0 million of the shares offered hereby. However, because these indications of interest are not binding agreements or commitments to purchase, such stockholders or their affiliates may elect to purchase more shares, fewer shares or not purchase any shares in this offering. In addition, the underwriters may determine to sell more, fewer or no shares in this offering to such stockholders or their affiliates.

We have granted the underwriters an option for a period of 30 days to purchase up to 1,350,000 shares of our Class A common stock from us at the public offering price, less the underwriting discounts and commissions.

Credit Suisse BTIG

SVB Leerink Oppenheimer & Co.

The date of this prospectus supplement is November , 2019.

TABLE OF CONTENTS

Prospectus Supplement

	Page
About this Prospectus Supplement	S-ii
CAUTIONARY NOTE REGARDING FORWARD -LOOKING STATEMENTS	S-iii
PROSPECTUS SUPPLEMENT SUMMARY	S-1
RISK FACTORS	S-15
Use of Proceeds	S-17
CAPITALIZATION	S-18
DILUTION	S-19
<u>Underwriting</u>	S-20
CERTAIN MATERIAL U.S. FEDERAL INCOME TAX CONSIDERATIONS FOR NON-U.S. HOLDERS	S-25
LEGAL MATTERS	S-29
Experts	S-29
WHERE YOU CAN FIND MORE INFORMATION	S-29
INFORMATION INCORPORATED BY REFERENCE	S-30

Prospectus

	Page
About this Prospectus	ii
CAUTIONARY NOTE REGARDING FORWARD -LOOKING STATEMENTS	iii
PROSPECTUS SUMMARY	1
RISK FACTORS	4
USE OF PROCEEDS	5
DESCRIPTION OF CAPITAL STOCK	6
DESCRIPTION OF DEBT SECURITIES	10
DESCRIPTION OF WARRANTS	18
DESCRIPTION OF UNITS	20
FORMS OF SECURITIES	21
PLAN OF DISTRIBUTION	23
LEGAL MATTERS	27
EXPERTS	27
WHERE YOU CAN FIND MORE INFORMATION	27
INFORMATION INCORPORATED BY REFERENCE	28

S-i

ABOUT THIS PROSPECTUS SUPPLEMENT

This document is part of a "shelf" registration statement on Form S-3 that we filed with the Securities and Exchange Commission, or the SEC, and is in two parts. The first part is this prospectus supplement, which describes the specific terms of this Class A common stock offering and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference herein. The second part, the accompanying prospectus, provides more general information. Generally, when we refer to this prospectus, we are referring to both parts of this document combined. To the extent there is a conflict between the information contained in this prospectus supplement and the information contained in the accompanying prospectus or any document incorporated by reference therein filed prior to the date of this prospectus supplement, you should rely on the information in this prospectus supplement; provided that if any statement in one of these documents is inconsistent with a statement in another document having a later date—for example, a document incorporated by reference in the accompanying prospectus—the statement in the document having the later date modifies or supersedes the earlier statement.

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference herein were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

Neither we nor the underwriters have authorized anyone to provide any information other than that contained or incorporated by reference in this prospectus supplement or in the accompanying prospectus. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This prospectus supplement and the accompanying prospectus do not constitute an offer to sell, or a solicitation of an offer to purchase, the securities offered by this prospectus supplement and the accompanying prospectus in any jurisdiction to or from any person to whom or from whom it is unlawful to make such offer or solicitation of an offer in such jurisdiction. The information contained in this prospectus supplement or the accompanying prospectus, or incorporated by reference herein or therein is accurate only as of the respective dates thereof, regardless of the time of delivery of this prospectus supplement and the accompanying prospectus or of any sale of our Class A common stock. It is important for you to read and consider all information contained in this prospectus supplement and the accompanying prospectus, including the documents incorporated by reference herein in making your investment decision. You should also read and consider the information in the documents to which we have referred you in the sections entitled "Where You Can Find More Information" and "Information Incorporated by Reference" in this prospectus supplement and in the accompanying and "Information Incorporated by Reference" in this prospectus.

We are offering to sell, and seeking offers to buy, shares of our Class A common stock only in jurisdictions where offers and sales are permitted. The distribution of this prospectus supplement and the accompanying prospectus and the offering of the Class A common stock in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus supplement and the accompanying prospectus outside the United States. This prospectus supplement and the accompanying prospectus do not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any securities offered by this prospectus supplement and the accompanying prospectus by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

Unless otherwise stated or unless the context otherwise requires, all references to "we," "us," "our," "our company" or "the Company" in this prospectus refer collectively to Organogenesis Holdings Inc., a Delaware corporation, and its subsidiaries.

S-ii

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement and the information incorporated by reference in this prospectus supplement include "forward-looking statements" within the meaning of Section 27A of the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. All statements, other than statements of historical facts, contained or incorporated by reference in this prospectus supplement, including statements regarding our strategy, future operations, future financial position, future revenues, projected costs, prospects, plans and objectives of management, are forward-looking statements. The words "anticipate," "believe," "estimate," "expect," "intend," "may," "plan," "predict," "project," "target," "potential," "will," "would," "could," "should," "continue" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. Forward-looking statements with respect to our operations, strategies, prospects and other aspects of our business are based on current expectations that are subject to known and unknown risks and uncertainties, which could cause actual results or outcomes to differ materially from expectations expressed or implied by such forward-looking statements. These factors include, but are not limited to the following:

- we have incurred significant losses since inception and anticipate that we will incur substantial losses for the foreseeable future;
- we face significant and continuing competition, which could adversely affect our business, results of operations and financial condition;
- rapid technological change could cause our products to become obsolete and if we do not enhance our product offerings through our research and development efforts, we may be unable to effectively compete;
- to be commercially successful, we must convince physicians that our products are safe and effective alternatives to existing treatments and that our products should be used in their procedures;
- our ability to raise funds to expand our business;
- the impact of any changes to the reimbursement levels for our products and the impact to us of the loss of preferred "pass through" status for PuraPly AM and PuraPly on October 1, 2020;
- our ability to maintain compliance with applicable Nasdaq Marketplace Rules;
- changes in applicable laws or regulations;
- the U.S. Food and Drug Administration may determine that certain of our products that are, or are derived from, human cells or tissues, including NuCel and ReNu, do not qualify for regulation solely under Section 361 of the Public Health Service Act, and may require that the products be removed from the market until we obtain premarket clearance or approval;
- interruptions in the supply of our products, including as a result of the disruptions in the availability of tissue from human donors, or inventory loss may adversely affect our business, results of operations and financial condition;
- the possibility that we may be adversely affected by other economic, business, and/or competitive factors; and
- other risks and uncertainties described in our filings with the SEC.

We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. See the "Risk Factors" section of this prospectus supplement, in our Annual Report on Form 10-K, as amended, for the fiscal year ended December 31, 2018 and in our Quarterly Report on Form 10-Q for the quarter ended September 30, 2019 for more information. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments that we may make. We do not assume any obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

S-iii

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights selected information contained elsewhere in this prospectus supplement and the accompanying prospectus and in the documents we incorporate herein by reference. This summary does not contain all of the information you should consider before investing in our Class A common stock. You should read this entire prospectus supplement and the accompanying prospectus carefully, especially the risks of investing in our Class A common stock discussed under the section titled "Risk Factors" in this prospectus supplement and under similar headings in our Annual Report on Form 10-K for the year ended December 31, 2018 and in our Quarterly Report on Form 10-Q for the quarter ended September 30, 2019, which are incorporated by reference in this prospectus supplement, along with our consolidated financial statements and notes to those consolidated financial statements and the other information incorporated by reference in this prospectus supplement and the accompanying prospectus, before making an investment decision.

The Company

We are a leading regenerative medicine company focused on the development, manufacture and commercialization of solutions for the Advanced Wound Care and Surgical & Sports Medicine markets. Our products have been shown through clinical and scientific studies to support and in some cases accelerate tissue healing and improve patient outcomes. We are advancing the standard of care in each phase of the healing process through multiple breakthroughs in tissue engineering and cell therapy. Our solutions address large and growing markets driven by aging demographics and increases in comorbidities such as diabetes, obesity, cardiovascular and peripheral vascular disease and smoking. We offer our differentiated products and in-house customer support to a wide range of health care customers including hospitals, wound care centers, government facilities, ambulatory surgical centers, or ASCs, and physician offices. Our mission is to provide integrated healing solutions that substantially improve medical outcomes and the lives of patients while lowering the overall cost of care.

We offer a comprehensive portfolio of products in the markets we serve that address patient needs across the continuum of care. We have and intend to continue to generate data from clinical trials, real world outcomes and health economics research that validate the clinical efficacy and value proposition offered by our products. The majority of the existing and pipeline products in our portfolio have premarket approval applications, or PMA, approval, biologics license applications, or BLA, approval or 510(k) clearance from the United States Food and Drug Administration, or the FDA. Given the extensive time and cost required to conduct clinical trials and receive FDA approvals, we believe that our data and regulatory approvals provide us a strong competitive advantage. Our product development expertise and multiple technology platforms provide a robust product pipeline, that we believe will drive future growth.

Historically we have concentrated our efforts in the Advanced Wound Care market. In 2017, we acquired NuTech Medical which further expanded our wound care portfolio and broadened our addressable market to include the Surgical & Sports Medicine market. We believe the expanded product portfolio facilitated by this acquisition is enhancing the ability of our sales representatives to reach and penetrate customer accounts, contributing to strong growth over time.

In the Advanced Wound Care market, we focus on the development and commercialization of advanced wound care products for the treatment of chronic and acute wounds, primarily in the outpatient setting. We have a comprehensive portfolio of regenerative medicine products, capable of supporting patients from early in the wound healing process through to wound closure regardless of wound type. Our Advanced Wound Care products include Apligraf for the treatment of venous leg ulcers, or VLUs, and diabetic foot ulcers, or DFUs; Dermagraft for the treatment of DFUs; PuraPly AM to address biofilm across a broad variety of wound types; and Affinity and NuShield to address a variety of wound sizes and types. We have a highly trained and specialized direct wound care sales force paired with exceptional customer support services.

In the Surgical & Sports Medicine market, we focus on products that support the healing of musculoskeletal injuries, including degenerative conditions such as osteoarthritis (OA) and tendonitis. We are leveraging our regenerative medicine capabilities in this attractive, adjacent market. Our Surgical & Sports Medicine products include ReNu for in-office joint and tendon applications; NuCel for bony fusion in the spine and extremities; NuShield and Affinity for surgical application in targeted soft tissue repairs; and PuraPly AM for surgical treatment of open wounds. We currently sell these products through independent agencies and our growing direct sales force.

Competitive Strengths

We believe we have several strengths that have been instrumental to our success and position us well for future growth:

- Leader in Regenerative Medicine Technology with Strong Brand Recognition. Given our extensive history in regenerative medicine, we have strong brand recognition and market leading positions across our portfolio, which includes flagship products Apligraf, Dermagraft and PuraPly AM, as well as our amniotic products NuCel, NuShield, ReNu and Affinity. Organogenesis is well recognized as an innovator that has advanced the science of regenerative medicine, as well as the methodology to manufacture living technology at large commercial scale and ship it worldwide. We first entered the market in 1998 with Apligraf, which is still considered one of the major breakthroughs of the Company in the regenerative medicine market, and a leader in the VLU market. In addition, our product, Dermagraft, has been on the market for over 15 years and is a well-known brand in the global regenerative medicine market. NuTech Medical has an established track record in the regenerative medicine category of the Surgical & Sports Medicine market and its products have a strong presence in this market.
- Well-Positioned in Large, Attractive and Growing Global Markets—Advanced Wound Care and Surgical & Sports Medicine. We believe both markets will continue to see accelerated growth given favorable global demographics that include an aging population and the greater incidence of comorbidities such as diabetes, obesity, and cardiovascular and peripheral vascular disease and smoking. We believe there is growing adoption of regenerative medicine products by the physician community due to their clinical superiority and cost effectiveness for all major stakeholders compared to traditional products.
- Comprehensive Suite of Products to Address the Clinical and Economic Needs of Wound Care Patients and Providers. Our comprehensive portfolio of wound care products allows physicians to personalize solutions to meet the needs of individual wound care patients. We engage with the physician at the earliest incidence of the patient's healing process with our PuraPly AM product, which is the only first line antimicrobial skin substitute with Polyhexamethylene biguanide (PHMB) for all wounds. If the underlying healing issues persist, we offer an array of bioactive products customizable for various sizes and types of wounds. The breadth of our portfolio gives us flexibility to offer products at various prices to accommodate both the clinical and economic factors that may impact purchasing decisions. Our products can address varying reimbursement levels depending on the type of wound, the payer, and geographic differences in payer payment rates. Our experienced wound care sales force is highly trained to assist clinicians to effectively deploy the full complement of our wound care products.
- Large and Growing Body of Clinical Data and FDA Approved Products. We have a deep body of scientific, clinical and real world
 outcomes data, including over 200 publications that review the technical and clinical attributes of our products. The majority of the
 existing and pipeline products in our product portfolio have FDA regulatory approval, including PMA approval, BLA approval or 510(k)
 clearance. Given the extensive time and cost required to conduct clinical trials and receive FDA approval, we believe our data and
 regulatory approvals provide us a strong competitive advantage.

- Robust and Extensive Relationships Across the Continuum of Care. We have established robust and extensive customer relationships across the entire continuum of care including hospitals, wound care centers, government facilities, ASCs and physician offices to sell our broad portfolio of products. We serve more than 3,000 health care facilities, hospital systems, integrated delivery networks, or IDNs, and group purchasing organizations, or GPOs. In addition, a number of physicians, nurses and other key decision makers support the use of our products. Given these relationships across the continuum of care, we believe we are well positioned to increase our penetration in the Advanced Wound Care market and leverage those relationships in the Surgical & Sports Medicine market.
- **Differentiated In-house Customer Support Capabilities Including Third-Party Reimbursement Support.** We strengthen our customer relationships with extensive in-house customer support capabilities. Through our dedicated team of experienced professionals, our "Circle of Care" program provides in-house third-party reimbursement, medical and technical support. We believe our customer support capabilities differentiate us from many of our competitors who may outsource these critical services to third parties.
- Established and Scalable Regulatory, Manufacturing and Commercial Infrastructure. We have developed significant in-house expertise on the regulatory approval process that is based on our successful management of multiple products through various FDA approval pathways including PMA approval, BLA approval and 510(k) clearance. We have also developed rigorous and proven FDA compliant manufacturing, distribution and logistics capabilities. We pair our operational capabilities with a strong commercial team of sales and marketing professionals. Our established regulatory, operational and commercial infrastructure provides a firm foundation for growth as we continue to scale our business.
- Extensive Executive Management Experience in Regenerative Medicine. Our executive management team has extensive experience in the regenerative medicine industry, boasting over 70 years of collective experience in the space. This experience allows us to operate from a deep understanding of the underlying trends in regenerative medicine and the intertwined scientific, clinical, regulatory, commercial and manufacturing issues that drive success in the industry.

Our Business Strategy

We believe the following strategies will play a critical role in our future growth:

- Drive Penetration in the Fast Growing Advanced Wound Care Market. We intend to leverage our comprehensive product portfolio and the support of key constituents to deepen our presence in the Advanced Wound Care market. In addition, with the acquisition of NuTech Medical, we acquired products that give us access to the rapidly growing amniotic category of the wound care market. We believe the breadth and flexibility of the portfolio we now offer will allow us to address a wide variety of wound types, sizes, and reimbursement levels, offering significant new opportunities for growth. Furthermore, we believe our expanded product portfolio is enhancing the ability of our sales representatives to reach and penetrate customer accounts, contributing to strong growth over time. Additionally, we believe there is significant room for expansion of the Advanced Wound Care market as a whole and our wound biologics product category in particular as more physicians and payers are educated about the benefits of regenerative medicine technologies versus traditional therapies. We continue to invest to support physician and payer education as well as preclinical and clinical trials, real-world evidence, and other research to confirm the benefits of our products. We will continue to seek expanded payer coverage for all of our products, particularly PuraPly AM, NuShield and Affinity for which we do not yet have the broad commercial payer coverage enjoyed by Apligraf and Dermagraft.
- **Expand into Surgical & Sports Medicine Market.** We entered the Surgical & Sports Medicine market with the acquisition of NuTech Medical and its established and leading presence in amniotic products.

We plan to accelerate penetration into this market by leveraging our established commercial and operational infrastructure and building out our direct sales force to supplement our independent sales agencies. We also expect there are significant opportunities to cross-sell within our established customer bases in both the Advanced Wound Care and Surgical & Sports Medicine markets. We believe that the potential of regenerative medicine in the Surgical & Sports Medicine market, particularly with respect to chronic inflammatory and degenerative conditions, presents a strong long-term opportunity. Based on industry reports and management estimates, we believe that there is a \$2.4 billion market opportunity for hydrolonic acid (HA) injection treatment options for OA and other degenerative conditions with a compound annual growth rate, or CAGR, of 7.3% from 2017-2022. Given our experience in the Advanced Wound Care market and regenerative medicine in general, we believe we are well positioned to capture this opportunity.

- Launch Robust Pipeline of Products and Drive Innovation With a Proven Research and Development Platform. We have a robust pipeline of products in both the Advanced Wound Care and Surgical & Sports Medicine markets that we expect to launch in the near term. We expect these products will deepen our portfolios and allow us to address additional clinical applications. In addition, we anticipate our ongoing efforts to complete clinical studies and publish research regarding our products will further enhance physician and payer receptiveness to our products over time. Our proven research and development capabilities and established technology platforms also support a robust and adaptable product pipeline for future applications.
- Expand Sales Force and Increase Sales Productivity and Geographic Reach. We plan to expand the reach and penetration of our products by growing our sales organization to serve the Advanced Wound Care and Surgical & Sports Medicine markets. This expansion should allow us to achieve more focused and effective sales coverage for specific market categories, broaden our geographic footprint, and leverage our expanding relationships with large hospital systems and GPOs. We also plan to increase our focus on sales outside of the United States, including the European Union, Asia and the Middle East. Currently, substantially all of our sales are in the United States.
- Supplement Organic Growth Through Selective Acquisitions. We have demonstrated our ability to successfully identify and integrate assets that complement our strategy through the acquisitions of Dermagraft and TransCyte from Shire and our amniotic products from NuTech Medical. We believe TransCyte has the ability to address a \$200 million burn market, which includes 50,000 burns that require medical attention and 40,000 burns that require hospitalization annually in the United States. We continue to evaluate tuck-in acquisitions which complement our existing portfolios in both the Advanced Wound Care and Surgical & Sports Medicine markets and will leverage our established commercial and manufacturing infrastructure.

Risks Associated with Our Business

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

- Our operating results may fluctuate significantly as a result of a variety of factors, many of which are outside of our control.
- We have incurred significant losses since our inception, and we anticipate that we will incur substantial losses for the foreseeable future.
- Our success will depend in part on the extent to which coverage and adequate reimbursement for the costs of our products and related treatments will be available from government health administration authorities, private health insurers and other third-party payers and we do not know whether such

reimbursement will be available or, if such reimbursement is available, the rate at which it will be available. The rate of reimbursement and coverage for the purchase of our products has been and may continue to be unstable, unpredictable and subject to changes in government and private payer policies that could adversely affect our business, results of operations and financial condition. Currently, not all of our products are covered by all payers.

- Many existing and potential customers for our products are members of GPOs and/or IDNs, including accountable care organizations or public-based purchasing organizations, and our business is partly dependent on major contracts with these organizations. Costcontainment efforts of our customers, GPOs, IDNs, third-party payers and governmental organizations could adversely affect our business, results of operations and financial condition.
- Medicare, which is the major source of revenue for most of our customers, reimburses the same amount for most of our products and the products of our competitors targeting the same indication in the hospital outpatient setting. Because the reimbursement amount is not based on the cost we charge our customers for our products or the cost our competitors charge for products targeting the same indication, our customers may elect to use products cheaper than ours in order to increase their margins, which could have a material adverse effect on our business, results of operations and financial condition.
- We have identified material weaknesses in our internal control over financial reporting, and our management has concluded that our disclosure controls and procedures are not effective. We cannot assure you that additional material weaknesses or significant deficiencies will not occur in the future. If our internal control over financial reporting or our disclosure controls and procedures are not effective, we may not be able to accurately report our financial results or prevent fraud, which may cause investors to lose confidence in our reported financial information and may lead to a decline in our stock price.
- We face significant and continuing competition, which could adversely affect our business, results of operations and financial condition.
- Rapid technological change could cause our products to become obsolete and if we do not enhance our product offerings through our research and development efforts, we may be unable to effectively compete.
- To be commercially successful, we must convince physicians that our products are safe and effective alternatives to existing treatments and that our products should be used in their procedures.
- Our failure to comply with regulatory obligations could result in negative effects on our business.
- The FDA may determine that certain of our products that are, or are derived from, human cells or tissues, such as Affinity, NuCel, NuShield and ReNu, do not qualify for regulation solely under Section 361 of the Public Health Services Act, or PHSA. To the extent that any of these products are deemed not to be HCT/Ps or Section 361 HCT/Ps, the FDA may require that we revise our labeling and marketing claims for these products or that we suspend sales of such products until FDA approval is obtained, which could adversely affect our business, results of operations and financial condition.
- Because we depend upon a limited group of suppliers and manufacturers for our Apligraf, Affinity, Dermagraft and NuShield products, we may incur significant product development costs or experience material delivery delays if there is an interruption in supply from any one of these suppliers or manufacturers, which could materially impact sales of our products.
- Our patents and other intellectual property rights may not adequately protect our products.
- We engage in transactions with related parties and the transactions present possible conflicts of interest that could have an adverse effect on our business, results of operations and financial condition.
- We are a "controlled company" within the meaning of Nasdaq Marketplace Rules and, as a result, qualify for exemptions from certain corporate governance requirements. The Controlling Stockholders (as

defined below), which include affiliates of each member of our board of directors, will effectively control the outcome of all matters requiring shareholder approval, including charter amendments, mergers, consolidations and asset sales.

Industry Overview

We focus our efforts on medical conditions that involve difficult to heal wounds and musculoskeletal injuries. Healing difficulties may arise from a variety of causes and in various types of tissue and anatomic areas. Impaired healing is commonly associated with an inability to move beyond the inflammatory stages of healing, resulting in a chronic wound or injury, an ongoing inflammatory cycle, and an inability to achieve normal tissue healing. Biofilm (densely packed communities of microbial cells that grow on living or inert surfaces and surround themselves with secreted polymers) and other infectious conditions also play a key role in disrupting wound healing processes. Regenerative medicine is a collection of technologies aimed at generating tissue as close as possible to native or natural tissue, to replace damaged tissue and to fill or replace defects. Demand for these technologies is increasing as physician understanding of the underlying wound healing processes grows and as demographic and population health trends result in the increased prevalence of systemic comorbidities that contribute to healing problems throughout the body.

Our products use regenerative medicine technologies to provide solutions in the Advanced Wound Care and Surgical & Sports Medicine markets. Based on industry reports and management estimates, we believe that our addressable Advanced Wound Care and Surgical & Sports Medicine markets total approximately \$14.9 billion, which includes an estimated \$8.9 billion addressable market for Advanced Wound Care and an estimated \$6.0 billion addressable market for Surgical & Sports Medicine. Within the Advanced Wound Care market, 54% of treatments are used in advanced wound dressings, 17% are used in biologics, 20% are used in negative pressure wound therapy and 9% are used in other treatments. The skin substitute sub-market, within biologics, grew at a CAGR of 15% from 2016 to 2018 and less than 5% of addressable wounds are currently being treated with skin substitutes. Within the Surgical & Sports Medicine market, the bone fusion sub-market accounted for approximately \$2.7 billion, the tendon and ligament injuries sub-market accounted for approximately \$1.0 billion and the chronic inflammatory and degenerative condition sub-market accounted for approximately \$2.4 billion.

Key drivers of growth in these two markets include:

- favorable global demographics and aging population;
- greater incidence of comorbidities that contribute to impaired healing, such as diabetes, obesity, cardiovascular and peripheral vascular disease and smoking; and
- increasing acceptance of advanced technologies to treat complex wounds and musculoskeletal injuries.

Our Products

Our products address both the Advanced Wound Care and Surgical & Sports Medicine markets. The following table summarizes our principal product offerings in each of our target end-markets:

Product (Launch Year)	Description	Market
Affinity (2014)†	Fresh amniotic membrane containing many types of viable	Advanced Wound Care, Surgical &
	cells, growth factors/cytokines, and extracellular matrix (ECM) proteins	Sports Medicine

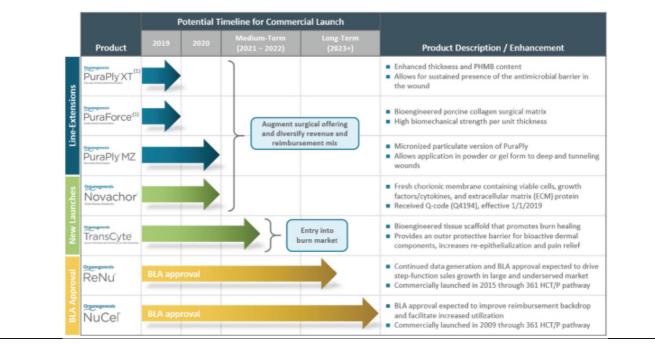


Table of Contents

Product (Launch Year)	Description	Market
Apligraf (1998)	Bioengineered living cell therapy that contains two living cell types, keratinocytes and fibroblasts, that produce a broad spectrum of cytokines and growth factors	Advanced Wound Care
Dermagraft (2001)*	Bioengineered product with living human fibroblasts, seeded on a bioabsorbable scaffold, that produce human collagen, ECM proteins, cytokines, and growth factors	Advanced Wound Care
NuCel (2009)†	Cellular suspension, stem cell-containing allograft derived from human amnion tissue and amniotic fluid	Surgical & Sports Medicine
NuShield (2010)†	Dehydrated placental tissue graft preserved to retain all layers of the native tissue including both the amnion and chorion membranes, with the epithelial layer and the spongy / intermediate layer intact	Advanced Wound Care, Surgical & Sports Medicine
PuraPly AM (2016)	Purified native collagen matrix with broad-spectrum PHMB antimicrobial agent	Advanced Wound Care, Surgical & Sports Medicine
ReNu (2015)†	Cryopreserved suspension of amniotic fluid cells and morselized amnion tissue from the same donor	Surgical & Sports Medicine
 Launched by NuTech Medical; acqui Launched by Smith & Nephew; acqui 		

Our Product Pipeline

We have a robust pipeline of products under development for both the Advanced Wound Care and Surgical & Sports Medicine markets. We believe our pipeline efforts will deepen our comprehensive portfolio of offerings as well as allow us to address additional clinical applications. The following table summarizes our pipeline products and potential timeline for their commercial launch:



Clinical Studies

We believe gathering robust and comprehensive clinical and real world outcomes data is an essential component of developing a competitive product portfolio and driving further penetration in the markets where we compete. We have eleven ongoing studies. We continue to invest in generating clinical data for our Advanced Wound Care and Surgical & Sports Medicine products, and believe such data enhances sales efforts with physicians and reimbursement dynamics with payers over time. The tables below summarize the status of our recent clinical studies for our Advanced Wound Care and Surgical & Sports Medicine products.

Advanced Wound Care

Product	Wound Type	Design	Completion Date	Estimated Data Presentation Date ⁽⁵⁾
	Acute + Chronic	Prospective Single Center Controlled Evaluation (N=40)	Completed ⁽²⁾	Publication Q1 2019
	Acute + Chronic	Prospective Single Center Controlled Prospective Evaluation (N=100)	Completed ⁽²⁾ Manuscript	Q1 2018 Q1 2020
	Acute + Chronic	PuraPly AM RESPOND Registry - 30 Center Registry Evaluating Real- World Effectiveness of PPAM (N=307)	Q2 2019 ⁽²⁾	Presented ACWHTR ^{I0} Q4 2019
PuraPlyAM	All Wounds	Comparative Effectiveness Analysis (CEA), NetHealth EMR Database of PPAM for Treatment of wounds (N=1,544)	Q3 2019 ⁽³⁾	Q1 2020
	Diabetic Foot Ulcers (DFU)	Comparative Effectiveness Analysis (CEA), NetHealth EMR Database of PPAM vs. Grafix (N=806)	Q3 2019 ^[3]	Q1 2020
	DFU	Comparative Effectiveness Analysis (CEA), NetHealth EMR Database of PPAM vs. Theraskin (N=719)	Q3 2019 ⁽³⁾	Q1 2020
	Pressure Ulcers (PU)	Prospective Multi-center Randomized Control Trial (RCT) PPAM vs. Standard of Care (SOC) (N=38)	Q4 2019 ⁽²⁾	Q2 2020
	Venous Leg Ulcers (VLU) ⁽¹⁾	Prospective Multi-center RCT PPAM vs. SOC (N=200)	FPI Q2 2020 ⁽⁴⁾	Q4 2022
	DFU	Prospective Multicenter RCT, Affinity vs. SOC (N=100)	Completed ⁽²⁾ Q4 2019	Q3 2019 Q4 2019 JCER
Affinity	NLU(1)	Prospective Study Evaluating Potential Changes in Wound Microenvironment (N–15)	Completed ⁽⁴⁾ Present at SAWC ⁽⁶⁾	Q4 2019 Q2 2020
	DEO(0)	Prospective Multicenter RCT, Affinity vs. SOC (N=200)	FPI Q3 2020 ⁽⁴⁾	Q4 2022
preprint.	DFU	CEA, NetHealth EMR Database of Dermagraft vs. Primatrix (N=208)	Q3 2019 ⁽³⁾	Q3 2019 WPM
Dermagraft	DFU	CEA, NetHealth EMR Database of Dermagraft vs. Grafix (N=1,622)	Completed ⁽²⁾	Q4 2019 JCER
NuShield	DFU	Prospective Multicenter RCT, NuShield vs. SOC (N=125)	Q3 2020 ⁽²⁾	Q1 2021
	ent last visit in the study. mate, or date analysis complete.	 initiation of the study based on fit Estimated date of first contenal pr ACWITE American collinge of Wo 	esentation of primary data.	AWC: Symposium of Advanced Wound Care.

Surgical & Sports Medicine

Product	Indication	Design	Completion Date ⁽¹⁾	Est. Data Presentation Date ⁽⁾
Organogenesis	Lumbar Spine Vertebral Fusion	57 patient Prospective, Efficacy Study of NuCel in patients Undergoing Fusion for One, Two or Three Level Degenerative Disease of the Lumbar Spine	Q2 2020	Q3 2021
NuCeľ	Lumbar Spine Vertebral Fusion	200 patient Single-Arm Prospective, Multi- center study of NuCel in patients receiving interbody fusion for one and two level degenerative disease of the lumbar spine	Q4 2022	Q3 2023
organogenesis ReNu°	Hip Osteoarthritis	10 patient Pilot Study of ReNu Hip Injection: Monitoring the Response of Hip Function and Pain in patients with Osteoarthritis	Completed	Q1 2020
	Osteochondral Defect Repair	8 patient Evaluation of the ReNu Amniotic Suspension Allograft after Marrow Stimulation in the Treatment of Osteochondral Defects	Q2 2022	Q4 2022
	Plantar Fasciitis	150 patient Comparative study of injectable human amniotic allograft (ReNu) versus corticosteroids for Plantar Fasciitis: A Prospective, Randomized, Blinded Study	Q2 2021	Q2 2022
	Knee Osteoarthritis	200 patient Investigation of ReNu Knee Injection: Monitoring the Response of Knee Function and Pain in patients with Osteoarthritis	Completed	Presented at AAOS ⁽³⁾ 2019

2. Estimated date of first external presentation of primary da

AAOS: American Academy of Orthopaedic Surgeons

Recently Published Clinical Studies

PuraPly AM

In a recently published 24-week study of the use of PuraPly AM in the management of bioburden and treatment of chronic, non-healing wounds (n=63), 90% of wounds demonstrated a reduction in area and 68% of wounds achieved complete closure (mean time to complete closure of 5.0 weeks). The wounds studied included 29% venous ulcers, 22% trauma and laceration, 16% post-surgical wounds, 13% pressure ulcers and 10% diabetic ulcers. The median wound area was 6.5cm² and mean wound duration was 4 months.

Affinity

In a published randomized controlled clinical trial of Affinity for use in diabetic foot ulcers comparing the use of Affinity and the standard of care (n=38) to the use of the standard of care alone (n=38), 60% of wounds in the Affinity and standard of care group achieved wound closure at 12 weeks compared to 38% of wounds in the standard of care group and 63% of wounds in the Affinity and standard of care group achieved wound closure at 16 weeks compared to 38% of wounds in the standard of care group. In addition: 82% of wounds in the Affinity and standard of care group; 65% of wounds in the Affinity and standard of care group; 65% of wounds in the Affinity and standard of care group; 65% of wounds in the Affinity and standard of care group; and 81% of wounds in the Affinity and standard of care group; and 81% of wounds in the Affinity and standard of care group achieved a greater than 60% reduction in wound depth as compared to 39% in the standard of care group; and 81% of wounds in the Affinity and standard of care group achieved a greater than 60% reduction in wound depth as compared to 38% in the standard of care group.

NuShield

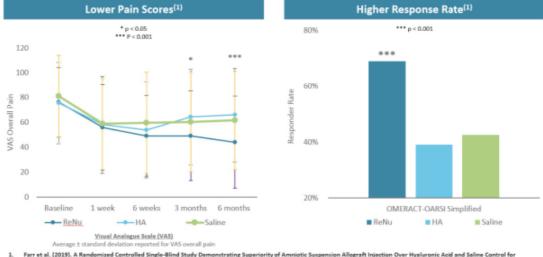
In a published clinical study of clinical experience using NuShield for the management of 50 wounds (VLUs (n=14), DFUs (n=24) and other wounds (n=12)). Of the total number of wounds, 45 (90%) had wound



closure percentages between 60% to 100%. The median time to complete wound closure (or healing) for all wounds was 102 days (14.6 weeks), and the percent healing rates of all wounds healed at 16 and 24 weeks was 56% and 73%, respectively. For DFUs treated with NuShield, the median time to healing was 120 days (17.1 weeks) and the percent healing rates at 16 and 24 weeks were 43% and 59%, respectively. For VLUs treated with NuShield, the median time to healing was 90 days (12.9 weeks), with percent healing rates of 56% and 85% at 16 and 24 weeks, respectively. For all other wounds treated with NuShield (including pressure ulcers, nonhealing surgical, ischemic, mixed etiology, and nonhealing amputation), the median time to healing was 48 days (6.9 weeks), with percent healing rates of 57% and 100% at 16 and 24 weeks, respectively.

ReNu

In a randomized controlled single-blind study comparing the treatment of knee OA symptoms with ReNu (n=68), a commercially available hyaluronic acid, or HA (n=64), and saline (n=68), patients treated with ReNu reported less pain and a higher OMERART-OARSI responder rate at 6 months follow-up than patients treated with HA or saline.



Farr et al. (2019). A Randomized Controlled Single-Blind Study Demonstrating Superiority of Amniotic Suspension Allograft Injection Over Hyaluronic Acid and Saline Control for Modification of Knee Osteearthritis Symptoms. Journal of Knee Surgery. DOI: 10.1055/s-0039-1696672.

NuCel

Published preliminary results of a study examining the use of NuCel to achieve one and two-level lumbar interbody fusion demonstrated that 97% of patients in the one-level lumbar interbody fusion group (n=38) achieved kinematic fusion and 100% of patients in the two-level lumbar interbody fusion group (n=34) achieved kinematic fusion. Baseline comorbidities were present in 90% of patients in the one-level lumbar interbody fusion group and 88% of patients in the two-level interbody fusion group and no adverse events related to NuCel were reported.

TransCyte

In a published study of the safety and efficacy of TransCyte for the treatment of partial thickness burns, the mean timing to achieve greater than 90% wound epithelialization was 11 days for patients treated with TransCyte as compared to 18 days for patients treated with silver sulfadiazine cream.

Corporate Information

We were formerly a special purpose acquisition company, incorporated under the laws of the Cayman Islands on December 4, 2015 under the name Avista Healthcare Public Acquisition Corp., or AHPAC, for the purpose of effecting a merger, share exchange, asset acquisition, share purchase, reorganization or similar business combination with one or more businesses. On December 10, 2018, pursuant to the terms of that certain Agreement and Plan of Merger, dated as of August 17, 2018, as amended, or the Merger Agreement, by and among AHPAC, Avista Healthcare Merger Sub, Inc., or Merger Sub, and Organogenesis Inc., among other things, (i) AHPAC transferred by way of continuation out of the Cayman Islands into the State of Delaware as a corporation incorporated under the laws of the State of Delaware under Section 388 of the Delaware General Corporation Law; and (ii) Merger Sub merged with and into Organogenesis Inc., the separate corporate existence of Merger Sub ceased and Organogenesis Inc. survived as a direct wholly owned subsidiary of AHPAC, which changed its name to Organogenesis Holdings Inc.

Our principal executive offices are located at 85 Dan Road, Canton, MA 02021, and our telephone number is (781) 575-0775. Our corporate website address is www.organogenesis.com. The information contained on, or that may be accessed through, our website is not part of, and is not incorporated into, this prospectus supplement.

Implications of Being a Controlled Company

We are presently a "controlled company" under the Nasdaq Marketplace Rules because Alan A. Ades, Albert Erani and Glenn H. Nussdorf, members of our board of directors, together with Dennis Erani, Starr Wisdom and certain of their respective affiliates (collectively, the "Controlling Stockholders"), control a majority of the voting power of our outstanding Class A common stock. As a "controlled company" we are entitled to rely on certain exemptions to Nasdaq's corporate governance requirements, including the requirement (i) that a majority of the board of directors consist of independent directors, (ii) to have a governance committee that is composed entirely of independent directors with a written charter addressing the committee's purpose and responsibilities, (iii) to have a compensation committee that is composed entirely of independent directors with a written charter addressing the committee's purpose and responsibilities, (iv) that the compensation committee consider certain independence factors when engaging legal counsel and other committee advisors and (v) for an annual performance evaluation of the governance and compensation committees. We expect to continue to be treated as a "controlled company" for the foreseeable future.

Implications of Being an Emerging Growth Company

We qualify as an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. As an emerging growth company, we may take advantage of disclosure and other requirements that are reduced in comparison with those otherwise applicable generally to public companies.

We may take advantage of these reduced requirements until the earliest to occur of (i) the last day of the fiscal year (a) following October 14, 2021, the fifth anniversary of our initial public offering, (b) in which the Company has total annual gross revenue of at least \$1.07 billion or (c) in which the Company is deemed to be a large accelerated filer, which means the market value of the Company Class A common stock that are held by non-affiliates exceeds \$700 million as of the last business day of the Company's prior second fiscal quarter, and (ii) the date on which the Company has issued more than \$1.0 billion in non-convertible debt during the prior three-year period. We may choose to take advantage of some, but not all, of the available exemptions. We have taken advantage of certain reduced reporting burdens in this prospectus. Accordingly, the information contained herein may be different than the information you receive from other public companies in which you hold stock.

In addition, the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. This allows an emerging growth company to delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have elected not to opt out of such extended transition period, which means that when a standard is issued or revised and it has different application dates for public or private companies, we, as an emerging growth company, can adopt the new or revised standard at the time private companies adopt the new or revised standard. This may make comparison of our financial statements with another public company which is neither an emerging growth company nor an emerging growth company which has opted out of using the extended transition period difficult or impossible because of the potential differences in accounting standards used.

THE OFFERING					
Class A common stock to be offered by us	9,000,000 shares				
Option to purchase additional shares from us	We have granted the underwriters an option for a period of 30 days to purchase up to 1,350,000 additional shares of our Class A common stock from us at the public offering price, less the underwriting discounts and commissions.				
Class A common stock to be outstanding immediately following this offering	103,741,742 shares (or 105,091,742 shares if the underwriters' option to purchase additional shares from us is exercised in full)				
Use of proceeds	We expect to use the net proceeds from this offering, together with other available funds, for working capital and general corporate purposes, including, but not limited to, facility expansion and manufacturing enhancements, salesforce expansion and to conduct clinical studies of, obtain regulatory approvals and additional commercial insurance coverage for our products. See "Use of Proceeds."				
Risk factors	An investment in our Class A common stock involves a high degree of risk. See the section titled "Risk Factors" in this prospectus supplement and under similar headings in the other documents that are incorporated by reference herein and therein.				
Nasdaq Capital Market symbol	"ORGO"				

Avista Capital Partners IV, L.P. and Avista Capital Partners IV (Offshore), L.P., have indicated an interest to purchase up to an aggregate of \$25.0 million of the shares offered hereby. Assuming a public offering price of \$7.79 per share, which is the last reported sale price of our Class A common stock as reported on the Nasdaq Capital Market on November 18, 2019, these stockholders would purchase an aggregate of up to approximately 3,209,242 shares in this offering based on these indications of interest. However, because these indications of interest are not binding agreements or commitments to purchase, such stockholders or their affiliates may elect to purchase more shares, fewer shares or not purchase any shares in this offering. In addition, the underwriters may determine to sell more, fewer or no shares in this offering to such stockholders or their affiliates.

The number of shares of our Class A common stock to be outstanding immediately after this offering is based on 94,741,742 shares of our Class A common stock outstanding as of September 30, 2019, and excludes:

- 6,588,000 shares of our Class A common stock issuable upon the exercise of stock options outstanding as of September 30, 2019 under our 2018 Equity Incentive Plan, or 2018 Plan, and our 2003 Stock Incentive Plan, or 2003 Plan, at a weighted average exercise price of \$2.10 per share; and
- 9,008,996 shares of Class A common stock reserved for future issuance under our 2018 Plan.

Except as otherwise indicated, the information in this prospectus supplement assumes no exercise of the outstanding stock options and no exercise by the underwriters of their option to purchase additional shares.

RISK FACTORS

An investment in our Class A common stock involves a high degree of risk. Before deciding whether to invest in our Class A common stock, you should carefully consider the risks described below and those discussed under the section titled "Risk Factors" contained in our Annual Report on Form 10-K for the year ended December 31, 2018 and in our Quarterly Report on Form 10-Q for the quarter ended September 30, 2019, which are incorporated by reference in this prospectus supplement and the accompanying prospectus, together with other information in this prospectus supplement, the accompanying prospectus, the information and documents incorporated by reference herein and therein, and in any free writing prospectus that we have authorized for use in connection with this offering. If any of these risks actually occurs, our business, financial condition, results of operations or cash flow could be seriously harmed. This could cause the trading price of our Class A common stock to decline, resulting in a loss of all or part of your investment.

If you purchase our Class A common stock in this offering, you will experience immediate and substantial dilution in investment. You will experience further dilution if we issue additional equity securities in future financing transactions.

You will suffer immediate and substantial dilution in the net tangible book value of the Class A common stock you purchase in this offering. As a result, investors purchasing shares of Class A common stock in this offering will incur immediate dilution of approximately \$ per share, representing the difference between the public offering price of \$ per share and our net tangible book value as of September 30, 2019 after giving effect to this offering. In addition, we have a significant number of stock options outstanding. To the extent that outstanding stock options have been or may be exercised, investors in this offering may experience further dilution. See "Dilution" for a more detailed description of the dilution to investors purchasing shares of our Class A common stock in the offering.

We will require more capital to continue our planned operations, including conducting clinical trials, pursuing our commercialization efforts, and expanding research and development activities. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders or result in downward pressure on the price of our Class A common stock. See the section titled "Dilution" for a more detailed discussion of the dilution you will incur if you purchase Class A common stock in this offering.

Our management might apply the net proceeds from this offering in ways with which you do not agree and in ways that may impair the value of your investment.

We expect to use the net proceeds from this offering, together with other available funds, for working capital and general corporate purposes, including, but not limited to, facility expansion and manufacturing enhancements, salesforce expansion and to conduct clinical studies of, obtain regulatory approvals and additional commercial insurance coverage for our products. Pending the use of net proceeds from this offering as further described in the section titled "Use of Proceeds," we intend to invest the net proceeds in cash items, certificates of deposit or direct or guaranteed obligations of the United States. Our management has broad discretion as to the use of these proceeds and you will be relying on the judgment of our management regarding the application of these proceeds. We might apply these proceeds in ways with which you do not agree, or in ways that do not yield a favorable return. If our management applies these proceeds in a manner that does not yield a significant return, if any, on our investment of these net proceeds, it could compromise our ability to pursue our growth strategy and adversely affect the market price of our Class A common stock.

Continued concentration of ownership of our Class A common stock among our Controlling Stockholders may prevent new investors from influencing significant corporate decisions.

We are presently a "controlled company" under the Nasdaq Marketplace Rules because Alan A. Ades, Albert Erani and Glenn H. Nussdorf, members of our board of directors, together with Dennis Erani, Starr Wisdom and certain of their respective affiliates (collectively, the "Controlling Stockholders"), control a majority of the voting power of our outstanding Class A common stock. These Controlling Stockholders beneficially own shares representing approximately 72% of our outstanding Class A common stock as of November 15, 2019. These stockholders will continue to hold a majority of our outstanding Class A common stock following this offering and they will be able to determine the outcome of all matters requiring stockholder approval, including the election and removal of directors and any merger or other significant corporate transactions. The interests of this group of stockholders may not coincide with the interests of other stockholders.

The Company's certificate of incorporation and bylaws designate the Court of Chancery of the State of Delaware, to the fullest extent permitted by law, as the sole and exclusive forum for certain types of actions and proceedings that may be initiated by the Company stockholders, which could limit the ability of the Company stockholders to obtain a favorable judicial forum for disputes with the Company or with directors, officers or employees of the Company and may discourage stockholders from bringing such claims.

Under the Company's certificate of incorporation and bylaws, unless the Company consents in writing to the selection of an alternative forum, the sole and exclusive forum will be the Court of Chancery of the State of Delaware for:

- any derivative action or proceeding brought on behalf of the Company;
- any action asserting a claim of breach of a fiduciary duty owed by, or any wrongdoing by, any director, officer or employee of the Company to the Company or the Company's stockholders;
- any action asserting a claim arising pursuant to any provision of the DGCL, the certificate of incorporation (including as it may be amended from time to time), or the bylaws;
- any action to interpret, apply, enforce or determine the validity of the certificate of incorporation or the bylaws; or
- any action asserting a claim governed by the internal affairs doctrine, in each case, except for, (1) any action as to which the Court of Chancery determines that there is an indispensable party not subject to the personal jurisdiction of the Court of Chancery (and the indispensable party does not consent to the personal jurisdiction of the Court of Chancery within ten (10) days following such determination) and (2) any action asserted under the Securities Exchange Act of 1934, as amended, or the rules and regulations promulgated thereunder, for which federal courts have exclusive jurisdiction.

These provisions of the Company's certificate of incorporation and bylaws could limit the ability of the Company stockholders to obtain a favorable judicial forum for certain disputes with the Company or with its directors, officers or other employees, which may discourage such lawsuits against the Company and its directors, officers and employees. Alternatively, if a court were to find these provisions of the Company's certificate of incorporation or bylaws inapplicable to, or unenforceable in respect of, one or more of the types of actions or proceedings listed above including, without limitation, any actions asserted under the Securities Act of 1933, as amended, the Company may incur additional costs associated with resolving such matters in other jurisdictions, which could adversely affect its business, financial condition and results of operations. In addition, there is uncertainty as to whether a court would enforce the Company's forum selection provision with respect to any actions asserted under the Securities Act of 1933, as amended, as investors cannot waive compliance with the federal securities laws and the rules and regulations thereunder.

USE OF PROCEEDS

We expect to receive approximately \$ million in net proceeds from the sale of shares of Class A common stock offered by us in this offering (or approximately \$ million if the underwriters exercise their option to purchase additional shares in full), after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

We expect to use the net proceeds from this offering, together with other available funds, for working capital and general corporate purposes, including, but not limited to, facility expansion and manufacturing enhancements, salesforce expansion and to conduct clinical studies of, obtain regulatory approvals and additional commercial insurance coverage for our products. The expected use of the net proceeds from this offering represents our intentions based upon our current plans and business conditions, which could change in the future as our plans and business conditions evolve. The amounts and timing of our actual expenditures depend on numerous factors. As a result, our management will have broad discretion in applying the net proceeds from this offering. Pending the use of the net proceeds from this offering, we intend to invest the net proceeds in cash items, certificates of deposit or direct or guaranteed obligations of the United States.

•

CAPITALIZATION

The following table sets forth our consolidated cash, cash equivalents and short-term investments, current position of long-term obligations and capitalization as of September 30, 2019:

- on an actual basis; and
- on an adjusted basis after giving effect to our sale of shares of Class A common stock offered hereby at a public offering price of per share and after deducting the underwriting discounts and commissions of \$ per share and estimated offering expenses.

You should read this table along with our historical consolidated financial statements and related notes and the other financial information included and incorporated by reference in this prospectus supplement and the accompanying prospectus.

	As of September 30, 2019	
	Actual	As adjusted
	(In thou	sands)
Cash and restricted cash	\$ 23,159	\$
Line of credit	\$ 33,484	\$
Term loan	49,599	
Capital lease obligations	17,765	
Deferred rent and other liabilities	7,127	
Stockholders' equity:		
Class A common stock, \$0.0001 par value; 400,000,000 shares authorized; 95,470,290 and 91,261,413 shares		
issued; 94,741,742 and 91,261,413 shares outstanding at September 30, 2019 and December 31, 2018,		
respectively.	9	
Additional paid-in capital	179,408	
Accumulated deficit	(166,609)	
Total stockholders' equity	12,808	
Total capitalization	\$ 120,783	\$

DILUTION

Our net tangible book value as of September 30, 2019 was \$(35.0) million, or \$(0.37) per share. Net tangible book value per share is determined by dividing our total tangible assets, less total liabilities, by the number of shares of our Class A common stock outstanding as of September 30, 2019. Dilution with respect to net tangible book value per share represents the difference between the amount per share paid by investors purchasing shares of Class A common stock in this offering and the net tangible book value per share of our Class A common stock immediately after this offering.

After giving effect to the sale of shares of our Class A common stock in this offering at a public offering price of \$ per share, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of September 30, 2019 would have been approximately \$ million, or \$ per share. This represents an immediate increase in net tangible book value of \$ per share to existing stockholders and immediate dilution of \$ per share to investors purchasing our Class A common stock in this offering. The following table illustrates this dilution on a per share basis:

Public offering price per share	\$
Net tangible book value per share as of September 30, 2019 \$(0.3	57)
Increase in net tangible book value per share attributable to investors in this offering \$	
As adjusted net tangible book value per share as of September 30, 2019, after giving effect to this offering	\$
Dilution per share to investors purchasing our Class A common stock in this offering	\$

If the underwriters exercise in full their option to purchase up to additional shares of Class A common stock at the public offering price of \$ per share, the as adjusted net tangible book value after this offering would be approximately \$ million, representing a decrease in net tangible book value of \$ per share to existing stockholders and immediate dilution in net tangible book value of \$ per share to investors purchasing our Class A common stock in this offering.

The above discussion and table are based on 94,741,742 shares of our Class A common stock outstanding as of September 30, 2019, which excludes:

- 6,588,000 shares of our Class A common stock issuable upon the exercise of stock options outstanding as of September 30, 2019 under our 2018 Equity Incentive Plan, or 2018 Plan, and our 2003 Stock Incentive Plan, or 2003 Plan, at a weighted average exercise price of \$2.10 per share; and
- 9,008,996 shares of Class A common stock reserved for future issuance under our 2018 Plan.

To the extent that outstanding options outstanding as of September 30, 2019 have been or may be exercised or other shares of Class A common stock are issued, investors purchasing our Class A common stock in this offering may experience further dilution. We will require more capital to continue investing in product development, sales and marketing and customer support for our products. In addition, we may also choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

UNDERWRITING

Under the terms and subject to the conditions contained in an underwriting agreement dated November , 2019, we have agreed to sell to the underwriters named below, for whom Credit Suisse Securities (USA) LLC and SVB Leerink LLC are acting as representatives, the following respective numbers of shares of Class A common stock:

<u>Underwriter</u> Credit Suisse Securities (USA) LLC	Number of Shares
SVB Leerink LLC	
BTIG, LLC	
Oppenheimer & Co. Inc.	
Total:	9,000,000

The underwriting agreement provides that the underwriters are obligated to purchase all the shares of Class A common stock in this offering if any are purchased, other than those shares covered by the option described below. The underwriting agreement also provides that if an underwriter defaults, commitments of non-defaulting underwriters may be increased or this offering may be terminated.

We have agreed to indemnify the underwriters and certain of their controlling persons against certain liabilities, including liabilities under the Securities Act, and to contribute to payments that the underwriters may be required to make in respect of those liabilities.

We have granted to the underwriters a 30-day option to purchase on a pro rata basis up to additional shares at the public offering price less the underwriting discounts and commissions. The option may be exercised only to cover any over-allotments of Class A common stock.

Avista Capital Partners IV, L.P. and Avista Capital Partners IV (Offshore), L.P., collectively referred to as the Participating Stockholders, have indicated an interest to purchase up to an aggregate of \$25.0 million of the shares offered hereby. However, because these indications of interest are not binding agreements or commitments to purchase, such stockholders or their affiliates may elect to purchase more shares, fewer shares or not purchase any shares in this offering. In addition, the underwriters may determine to sell more, fewer or no shares in this offering to such stockholders or their affiliates.

The underwriters propose to offer the shares of Class A common stock initially at the public offering price on the cover page of this prospectus supplement and to selling group members at that price less a selling concession of up to \$ per share. After the public offering, the representatives may change the public offering price and concession and discount to broker/dealers.

The following table summarizes the compensation and estimated expenses we will pay and assumes either no exercise or full exercise by the underwriters of their option to purchase additional shares:

	Per Share		Total	
	Without	With	Without	With
Underwriting Discounts and Commissions paid by us	Option \$	Option \$	Option \$	Option \$
Expenses payable by us	\$	\$	\$	\$

We estimate that our out of pocket expenses for this offering excluding the underwriting discounts and commissions will be approximately \$570,000. We have also agreed to reimburse the underwriters for expenses of up to \$50,000 related to the review of this offering by the Financial Industry Regulatory Authority, Inc., or FINRA and in connection with the qualification of the shares for sale under the laws of certain jurisdictions. In

accordance with FINRA Rule 5110, these reimbursed expenses are deemed underwriting compensation for this offering.

If the Participating Stockholders purchase shares in this offering, the underwriters have agreed to reimburse us for any discounts or commissions with respect to such shares. We will, however, be obligated to pay a fee equal to that amount to an affiliate of the Participating Stockholders if the Participating Stockholders purchase shares in this offering. The disclosure in the table above does not give effect to the reimbursement of the discounts and commissions or the payment of any fees with respect to any shares that may be sold to the Participating Stockholders. Joshua Tamaroff, one of our directors, is an employee of the affiliate of the Participating Stockholders to whom we will pay the fee.

We have agreed that we will not offer, sell, issue, contract to sell, pledge or otherwise dispose of, directly or indirectly, or file with the SEC a registration statement under the Securities Act relating to, any shares of our Class A common stock or securities convertible into or exchangeable or exercisable for any shares of our Class A common stock, or publicly disclose the intention to make any offer, sale, pledge, disposition or filing, without the prior written consent of the representatives for a period of 90 days after the date of this prospectus supplement, except for (i) issuances pursuant to the conversion or exchange of convertible or exchangeable securities or the exercise of warrants or options, (ii) grants of employee stock options pursuant to certain plans, (iii) issuances pursuant to the exercise of such options, (iv) issuances in connection with acquisitions by us, provided that the aggregate number of securities issued pursuant to such issuances does not exceed 5% of our outstanding shares and subject to certain lock-up requirements and (v) issuances pursuant to our dividend reinvestment plan.

Our officers, directors and certain security holders have agreed that they will not offer, sell, contract to sell, pledge or otherwise dispose of, directly or indirectly, any shares of our Class A common stock or securities convertible into or exchangeable or exercisable for any shares of our Class A common stock, enter into a transaction that would have the same effect, or enter into any swap, hedge or other arrangement that transfers, in whole or in part, any of the economic consequences of ownership of our Class A common stock, whether any of these transactions are to be settled by delivery of our Class A common stock or other securities, in cash or otherwise, or publicly disclose the intention to make any such offer, sale, pledge or disposition, or to enter into any such transaction, swap, hedge or other arrangement, without, in each case, the prior written consent of the representatives for a period of 90 days after the date of this prospectus supplement, subject to certain exceptions.

We have agreed to indemnify the underwriters against liabilities under the Securities Act, or contribute to payments that the underwriters may be required to make in that respect.

Our Class A common stock is listed on The Nasdaq Capital Market under the trading symbol "ORGO."

In connection with this offering the underwriters may engage in stabilizing transactions, over-allotment transactions, syndicate covering transactions, penalty bids and passive market making in accordance with Regulation M under the Exchange Act.

- Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum.
- Over-allotment involves sales by the underwriters of shares in excess of the number of shares the underwriters are obligated to purchase, which creates a syndicate short position. The short position may be either a covered short position or a naked short position. In a covered short position, the number of shares over-allotted by the underwriters is not greater than the number of shares that they may purchase in the over-allotment option. In a naked short position, the number of shares involved is greater than the number of shares in the over-allotment option. The underwriters may close out any covered short position by either exercising their over-allotment option and/or purchasing shares in the open market.

Table of Contents

- Syndicate covering transactions involve purchases of the Class A common stock in the open market after the distribution has been completed in order to cover syndicate short positions. In determining the source of shares to close out the short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the over-allotment option. If the underwriters sell more shares than could be covered by the over-allotment option, a naked short position, the position can only be closed out by buying shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there could be downward pressure on the price of the shares in the open market after pricing that could adversely affect investors who purchase in the offering.
- Penalty bids permit the representatives to reclaim a selling concession from a syndicate member when the Class A common stock originally sold by the syndicate member is purchased in a stabilizing transaction or a syndicate covering transaction to cover syndicate short positions.
- In passive market making, market makers in the Class A common stock who are underwriters or prospective underwriters may, subject to limitations, make bids for or purchases of our Class A common stock until the time, if any, at which a stabilizing bid is made.

These stabilizing transactions, syndicate covering transactions and penalty bids may have the effect of raising or maintaining the market price of our Class A common stock or preventing or retarding a decline in the market price of the Class A common stock. As a result the price of our Class A common stock may be higher than the price that might otherwise exist in the open market. These transactions may be effected on the Nasdaq Capital Market or otherwise and, if commenced, may be discontinued at any time.

A prospectus supplement and the accompanying prospectus in electronic format may be made available on the web sites maintained by one or more of the underwriters, or selling group members, if any, participating in this offering and one or more of the underwriters participating in this offering may distribute prospectuses electronically. The underwriters may agree to allocate a number of shares to underwriters and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the underwriters and selling group members that will make internet distributions on the same basis as other allocations.

The underwriters and their respective affiliates are full-service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities. Certain of the underwriters and their respective affiliates have, from time to time, performed, and may in the future perform, various financial advisory, lending and investment banking services for us, for which they received or will receive customary fees and expenses. Silicon Valley Bank, a leader under our credit agreement, is an affiliate of SVB Leerink LLC, one of the underwriters in this offering.

In addition, in the ordinary course of their business activities, the underwriters and their affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers. These investments and securities activities may involve securities and/or instruments of ours or our affiliates. The underwriters and their affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or financial instruments and may hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

Selling Restrictions

Notice to Prospective Investors in Switzerland

This document is not intended to constitute an offer or solicitation to purchase or invest in the securities described herein. The securities may not be publicly offered, sold or advertised, directly or indirectly, in, into or from Switzerland and will not be listed on the SIX Swiss Exchange or on any other exchange or regulated trading facility in Switzerland. Neither this document nor any other offering or marketing material relating to the securities constitutes a prospectus as such term is understood pursuant to article 652a or article 1156 of the Swiss

Code of Obligations or a listing prospectus within the meaning of the listing rules of the SIX Swiss Exchange or any other regulated trading facility in Switzerland, and neither this document nor any other offering or marketing material relating to the securities may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this document nor any other offering or marketing material relating to this offering, nor the Company nor the securities have been or will be filed with or approved by any Swiss regulatory authority. The securities are not subject to the supervision by any Swiss regulatory authority, e.g., the Swiss Financial Markets Supervisory Authority FINMA (FINMA), and investors in the securities will not benefit from protection or supervision by such authority.

Notice to Prospective Purchasers in the European Economic Area

In relation to each member state of the European Economic Area, no offer has been made and no offer will be made of the Class A common stock to the public in that member state prior to the publication of a prospectus in relation to the Class A common stock that has been approved by the competent authority in that member state or, where appropriate, approved in another member state and notified to the competent authority in that member state or, where appropriate, approved in another member state and notified to the competent authority in that member state or, where appropriate, approved in another member state and notified to the competent authority in that member state, all in accordance with the Regulation (EU) 2017/1129 (the "Prospectus Regulation"), except that the Class A common stock may be offered to the public in that member state at any time:

- (i) to any legal entity which is a qualified investor as defined in the Prospectus Regulation;
- (ii) to fewer than 150 natural or legal persons (other than qualified investors as defined in the Prospectus Regulation), subject to obtaining the prior consent of the relevant dealer or dealers nominated by us for any such offer; or
- (iii) in any other circumstances falling within Article 1(4) of the Prospectus Regulation,

provided that no such offer of the Class A common stock shall result in a requirement for the publication by us or the underwriters of a prospectus pursuant to Article 3 of the Prospectus Regulation. As used above, the expression "offered to the public" in relation to the Class A common stock in any member state means the communication in any form and by any means of sufficient information on the terms of the offer and the Class A common stock to be offered so as to enable an investor to decide to purchase or subscribe for the Class A common stock.

Notice to Prospective Purchasers in the United Kingdom

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

Notice to Canadian Residents

Resale Restrictions

The distribution of shares of Class A common stock in Canada is being made only in the provinces of Ontario, Quebec, Alberta and British Columbia on a private placement basis exempt from the requirement that

we prepare and file a prospectus with the securities regulatory authorities in each province where trades of these securities are made. Any resale of the shares of Class A common stock in Canada must be made under applicable securities laws which may vary depending on the relevant jurisdiction, and which may require resales to be made under available statutory exemptions or under a discretionary exemption granted by the applicable Canadian securities regulatory authority. Purchasers are advised to seek legal advice prior to any resale of the securities.

Representations of Canadian Purchasers

By purchasing shares of Class A common stock in Canada and accepting delivery of a purchase confirmation, a purchaser is representing to us and the dealer from whom the purchase confirmation is received that:

- the purchaser is entitled under applicable provincial securities laws to purchase the shares of Class A common stock without the benefit of a prospectus qualified under those securities laws as it is an "accredited investor" as defined under National Instrument 45-106—*Prospectus Exemptions*,
- the purchaser is a "permitted client" as defined in National Instrument 31-103—Registration Requirements, Exemptions and Ongoing Registrant Obligations,
- · where required by law, the purchaser is purchasing as principal and not as agent, and
- the purchaser has reviewed the text above under Resale Restrictions.

Statutory Rights of Action

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if the offering memorandum (including any amendment thereto) such as this document contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser of these securities in Canada should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Enforcement of Legal Rights

All of our directors and officers as well as the experts named herein may be located outside of Canada and, as a result, it may not be possible for Canadian purchasers to effect service of process within Canada upon us or those persons. All or a substantial portion of our assets and the assets of those persons may be located outside of Canada and, as a result, it may not be possible to satisfy a judgment against us or those persons in Canada or to enforce a judgment obtained in Canadian courts against us or those persons outside of Canada.

Taxation and Eligibility for Investment

Canadian purchasers of shares of Class A common stock should consult their own legal and tax advisors with respect to the tax consequences of an investment in the shares of Class A common stock in their particular circumstances and about the eligibility of the shares of Class A common stock for investment by the purchaser under relevant Canadian legislation.

CERTAIN MATERIAL U.S. FEDERAL INCOME TAX CONSIDERATIONS FOR NON-U.S. HOLDERS

The following is a general discussion of the material U.S. federal income tax considerations applicable to non-U.S. holders (as defined below) with respect to their purchase, ownership and disposition of shares of our Class A common stock. This discussion is for general information only and is not tax advice. Accordingly, all prospective non-U.S. holders of our Class A common stock should consult their tax advisors with respect to the U.S. federal, state, local and non-U.S. tax consequences of the purchase, ownership and disposition of our Class A common stock.

This discussion is based on current provisions of the Code, existing and proposed U.S. Treasury Regulations promulgated thereunder, current administrative rulings and judicial decisions, all as in effect as of the date of this prospectus, all of which are subject to change or to differing interpretation, possibly with retroactive effect. Any change could alter the tax consequences to non-U.S. holders described in this prospectus. We assume in this discussion that a non-U.S. holder holds shares of our Class A common stock as a capital asset (generally, property held for investment).

This discussion does not address all aspects of U.S. federal income taxation that may be relevant to a particular non-U.S. holder in light of that non-U.S. holder's individual circumstances nor does it address, except to the limited extent discussed below, any aspects of U.S. federal estate or gift taxes, or state, local or non-U.S. taxes. This discussion also does not consider any specific facts or circumstances that may apply to a non-U.S. holder and does not address the special tax rules applicable to particular non-U.S. holders, such as:

- banks;
- insurance companies;
- tax-exempt organizations;
- financial institutions;
- brokers or dealers in securities or currencies;
- regulated investment companies;
- pension plans;
- controlled foreign corporations;
- passive foreign investment companies;
- persons subject to the U.S. federal alternative minimum tax or the 3.8% tax on net investment income;
- owners that hold our Class A common stock as part of a straddle, hedge, conversion transaction, synthetic security or other integrated investment; and
- certain U.S. expatriates.

In addition, this discussion does not address the tax treatment of partnerships or other pass-through entities, or persons who hold our Class A common stock through partnerships or other pass-through entities, for U.S. federal income tax purposes. A partner in a partnership or other pass-through entity that will hold our Class A common stock should consult his, her or its tax advisor regarding the tax consequences of acquiring, holding and disposing of our Class A common stock through a partnership or other pass-through entity, as applicable.

We have not sought and will not seek any ruling from the U.S. Internal Revenue Service, which we refer to as the IRS, with respect to the statements made and the conclusions reached in the following discussion. There can be no assurance that the IRS will not challenge one or more of the tax consequences described herein, or that any such challenge would not be sustained by a court.

Table of Contents

NON-U.S. HOLDERS ARE URGED TO CONSULT THEIR TAX ADVISORS WITH RESPECT TO THE APPLICATION OF THE U.S. FEDERAL TAX LAWS TO THEIR PURCHASE, OWNERSHIP AND DISPOSITION OF OUR CLASS A COMMON STOCK IN LIGHT OF THEIR PARTICULAR SITUATIONS, AS WELL AS ANY TAX CONSEQUENCES ARISING UNDER THE LAWS OF ANY STATE, LOCAL, NON-U.S. OR OTHER TAXING JURISDICTION OR UNDER ANY APPLICABLE TAX TREATY.

Non-U.S. Holder Defined

For purposes of this discussion, a non-U.S. holder means a beneficial owner of our Class A common stock that, for U.S. federal income tax purposes, is an individual, corporation, estate or trust that is not a U.S. person. For purposes of this discussion, a U.S. person is:

- an individual who is a citizen or resident of the United States for U.S. federal income tax purposes;
- a corporation, or any other entity or organization taxable as a corporation for U.S. federal income tax purposes, created or organized in the United States or under the laws of the United States, any political subdivision thereof, any state thereof or the District of Columbia;
- an estate, the income of which is subject to U.S. federal income tax regardless of its source; or
- a trust if (1) a U.S. court is able to exercise primary supervision over the trust's administration and one or more U.S. persons have the authority to control all of the trust's substantial decisions or (2) the trust has a valid election in effect to be treated as a U.S. person.

Distributions on Our Class A Common Stock

We have not made distributions on our Class A common stock and do not plan to make any distributions for the foreseeable future. However, if we do make distributions of cash or property on our Class A common stock, those payments generally will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. If a distribution exceeds our current and accumulated earnings and profits, the excess will be treated as a tax-free return of the non-U.S. holder's investment, up to such holder's tax basis in the Class A common stock. Any remaining excess will be treated as capital gain, subject to the tax treatment described below in "—Gain on Sale, Exchange or Other Disposition of Our Class A Common Stock."

Subject to the discussion below on backup withholding and FATCA (defined below), dividends paid to a non-U.S. holder generally will be subject to withholding of U.S. federal income tax at a 30.0% rate or such lower rate as may be specified by an applicable income tax treaty. A non-U.S. holder of our Class A common stock who claims the benefit of an applicable income tax treaty generally will be required to provide a properly executed IRS Form W-8BEN or W-8BEN-E (or other appropriate version of IRS Form W-8 or successor form) and satisfy applicable certification and other requirements. Non-U.S. holders are urged to consult their tax advisors regarding their entitlement to benefits under any applicable income tax treaty.

Dividends that are treated as effectively connected with a trade or business conducted by a non-U.S. holder within the United States and, if an applicable income tax treaty so provides, that are attributable to a permanent establishment or a fixed base maintained by the non-U.S. holder within the United States, are generally exempt from the 30.0% withholding tax if the non-U.S. holder satisfies applicable certification and disclosure requirements by providing a properly executed IRS Form W-8ECI (or successor form). However, such U.S. effectively connected income, net of specified deductions and credits, is taxed at the same graduated U.S. federal income tax rates applicable to U.S. persons. In addition, any U.S. effectively connected income received by a non-U.S. holder that is a corporation (or other entity that is treated as a corporation for U.S. federal income tax purposes) may also, under certain circumstances, be subject to an additional U.S. federal branch profits tax at a 30.0% rate or such lower rate as may be specified by an applicable income tax treaty.

A non-U.S. holder that is eligible for a reduced rate of U.S. withholding tax under an income tax treaty may obtain a refund or credit of any excess amounts withheld by timely filing a U.S. federal income tax return with the IRS.

Gain on Sale, Exchange or Other Disposition of Our Class A Common Stock

Subject to the discussion below on backup withholding and FATCA, a non-U.S. holder generally will not be subject to U.S. federal income tax on any gain realized upon such holder's sale, exchange or other disposition of shares of our Class A common stock unless:

- the gain is effectively connected with the non-U.S. holder's conduct of a U.S. trade or business and, if an applicable income tax treaty so provides, is attributable to a permanent establishment or a fixed base maintained by such non-U.S. holder in the United States, in which case the non-U.S. holder generally will be taxed at the graduated U.S. federal income tax rates applicable to U.S. persons and, if the non-U.S. holder is a corporation (or an entity treated as a corporation for U.S. federal income tax purposes), it also may be subject to a U.S. federal branch profits tax at a rate of 30.0% (or such lower rate as may be specified by an applicable income tax treaty) on such effectively connected gain;
- the non-U.S. holder is a nonresident alien individual for U.S. federal income tax purposes who is present in the United States for 183 days or more in the taxable year of the disposition and certain other conditions are met, in which case the non-U.S. holder will be subject to a 30.0% tax (or such lower rate as may be specified by an applicable income tax treaty) on the net gain derived from the disposition, which may be offset by certain U.S. source capital losses of the non-U.S. holder, if any; or
- we are, or have been, at any time during the five-year period preceding such disposition (or the non-U.S. holder's holding period, if shorter) a U.S. real property holding corporation for U.S. federal income tax purposes. Generally, a corporation is a U.S. real property holding corporation only if the fair market value of its U.S. real property interests equals or exceeds 50.0% of the sum of the fair market value of its worldwide real property interests plus the fair market value of any other of its assets used or held for use in a trade or business. Although there can be no assurance, we do not believe that we are, or have been, a U.S. real property holding corporation, or that we are likely to become one in the future. Even if we are or were to become a U.S. federal income tax under this rule if our Class A common stock will not be subject to U.S. federal income tax under this rule if our Class A common stock, directly or indirectly, during the shorter of the 5-year period ending on the date of the disposition or the period that the non-U.S. holder held our Class A common stock. No assurance can be provided that our Class A common stock will be regularly traded on an established securities market for purposes of the rules described above.

U.S. Federal Estate Tax

Property having a U.S. situs generally is includible in the gross estate of an individual non-U.S. holder for U.S. federal estate tax purposes. Because we are a U.S. corporation, our Class A common stock will be U.S. situs property for U.S. federal estate tax purposes and, therefore, generally will be included in the gross estate of an individual who is a non-U.S. holder at the time of his or her death, unless an applicable estate tax treaty provides otherwise.

Backup Withholding and Information Reporting

We must report annually to the IRS and to each non-U.S. holder payments of dividends on our Class A common stock to such holder and the tax withheld, if any, with respect to such dividends, along with certain other information. Non-U.S. holders may have to comply with specific certification procedures to establish that the holder is not a U.S. person in order to avoid backup withholding with respect to dividends on our Class A common stock. Dividends paid to non-U.S. holders subject to the U.S. withholding tax, as described above in "—Distributions on our Class A common stock," generally will be exempt from U.S. backup withholding.

Table of Contents

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

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

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules from a payment to a non-U.S. holder can be refunded or credited against the non-U.S. holder's U.S. federal income tax liability, if any, provided that an appropriate claim is timely filed with the IRS.

Foreign Account Tax Compliance Act (FATCA)

Section 1471 through 1474 of the Code and related Treasury regulations and guidance (commonly referred to as "FATCA") generally imposes a U.S. federal withholding tax at a rate of 30.0% on dividends on, or gross proceeds from the sale or other disposition of, our Class A common stock that are paid to certain non-U.S. entities (including foreign financial institutions and non-financial foreign entities, both as specifically defined under FATCA), unless such non-U.S. entities establish that they are compliant with or exempt from FATCA. To comply with FATCA, a foreign financial institution generally is required to register with the IRS, collect and provide to tax authorities information regarding U.S. account holders of such institution (including certain equity and debt holders of such institution, as well as certain account holders that are non-U.S. entities with U.S. owners), and provide withholding agents with a certification that it is compliant with FATCA. A non-financial foreign entity generally is required to provide withholding agents with either a certification that it does not have any substantial direct or indirect U.S. owners or information regarding substantial direct and indirect U.S. owners of the entity, or otherwise establishes an exemption from FATCA. An intergovernmental agreement between the United States and an applicable foreign country may, however, modify these requirements and these requirements are different from and in addition to the certification requirements described elsewhere in this discussion. The FATCA withholding tax rules are in effect with respect to dividends on our Class A common stock. Pursuant to proposed regulations (which can be relied upon until final regulations are issued), withholding on payments of gross proceeds from the sale or other disposition of our Class A common stock would be eliminated. Amounts withheld under FATCA with respect to income that is also subject to the general U.S. federal withholding tax, as discussed above in "—Distributions on Our Class A Common Stock," will be applied against and reduce the amount of such other withholding tax. Prospective investors should consult their tax advisors regarding the possible implications of FATCA on their investment in our Class A common stock.

LEGAL MATTERS

The legality of the securities offered hereby will be passed upon for us by Foley Hoag LLP of Boston, Massachusetts. Ropes & Gray LLP, Boston, Massachusetts, is counsel for the underwriters in connection with this offering.

EXPERTS

The consolidated financial statements of Organogenesis Holdings Inc. as of December 31, 2018 and 2017 and for each of the years in the threeyear period ended December 31, 2018 incorporated in this Prospectus by reference from the Organogenesis Holdings Inc. Annual Report on Form 10-K for the year ended December 31, 2018 have been audited by RSM US LLP, an independent registered public accounting firm, as stated in their report thereon, incorporated herein by reference, and have been incorporated in this Prospectus and Registration Statement in reliance upon such report and upon the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any document we file at the SEC's Public Reference Room located at One Station Place, 100 F Street, N.E., Washington, D.C. 20549. You can also request copies of the documents, upon payment of a duplicating fee, by writing the Public Reference Section of the SEC. Please call the SEC at 1-800-SEC-0330 for further information on the Public Reference Room. These filings are also available to the public from the SEC's website at *www.sec.gov*.

INFORMATION INCORPORATED BY REFERENCE

The SEC allows us to "incorporate by reference" information into this prospectus supplement. This means that we can disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is considered to be a part of this prospectus supplement, except for any information that is superseded by information that is included directly in this prospectus supplement or incorporated by reference subsequent to the date of this prospectus. We do not incorporate the contents of our website into this prospectus supplement. This prospectus supplement incorporates by reference the documents listed below that we have previously filed with the SEC. They contain important information about us and our financial condition. The following documents are incorporated by reference into this prospectus supplement:

- our annual report on Form 10-K for the fiscal year ended December 31, 2018, filed with the SEC on March 18, 2019, as amended by the amendment to our annual report on Form 10-K/A, filed on April 30, 2019;
- our quarterly report on Form 10-Q for the quarter ended March 31, 2019, filed with the SEC on May 10, 2019;
- our quarterly report on Form 10-Q for the quarter ended June 30, 2019, filed with the SEC on August 9, 2019;
- our quarterly report on Form 10-Q for the quarter ended September 30, 2019, filed with the SEC on November 12, 2019;
- our current reports on Form 8-K, which were filed with the SEC on January 7, 2019 (Film No. 19512275), January 7, 2019 (Film No. 19513981), January 31, 2019, March 12, 2019, March 14, 2019, March 19, 2019, March 20, 2019, April 1, 2019, July 16, 2019, August 8, 2019, August 19, 2019, August 21, 2019 and November 15, 2019;
- the description of our capital stock contained in our joint proxy statement/prospectus dated November 30, 2018, which was filed on November 30, 2018 and is part of the Registration Statement on <u>Form S-4</u> originally filed with the SEC on August 29, 2018 (Registration No. 333-2227090), including any amendments or supplements thereto; and
- the description of our Class A common stock contained in our Registration Statement on Form 8-A, as filed with the SEC on October 5, 2016, including any amendment or report filed for the purpose of updating such description.

In addition, we incorporate by reference all documents that we may file with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act on or after the date of effectiveness of the registration statement until the date on which this registration statement has been withdrawn. These documents will become a part of this prospectus supplement from the date that the documents are filed with the SEC. These documents include periodic reports, such as annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K, excluding any information filed or furnished pursuant to Item 2.02 or Item 7.01, unless such Form 8-K expressly provides to the contrary.

Upon oral or written request and at no cost to the requester, we will provide to each person, including any beneficial owner, to whom a prospectus is delivered, a copy of any or all of the information that has been incorporated by reference in this prospectus supplement but not delivered with this prospectus supplement. You may obtain copies of these documents, at no cost to you, from our website (www.organogenesis.com), or by writing or telephoning us at the following address: Organogenesis Holdings Inc., 85 Dan Road, Canton, MA 02021, (781) 575-0775. The information contained in, or that can be accessed through, our website is not part of this prospectus supplement.

Table of Contents

Prospectus



\$100,000,000

Common Stock Preferred Stock Debt Securities Warrants Units

We may offer and sell securities from time to time in one or more offerings of up to \$100,000,000 in aggregate offering price. This prospectus describes the general terms of these securities and the general manner in which these securities will be offered. Each time we sell securities, we will provide a prospectus supplement that will contain specific information about the terms of that sale and that may add to or update the information in this prospectus. You should read this prospectus and any applicable prospectus supplement carefully before you invest in our securities.

The securities may be offered directly by us, through agents designated from time to time by us or to or through underwriters or dealers. If any agents, underwriters or dealers are involved in the sale of any of the securities, their names and any applicable purchase price, fee, commission or discount arrangement between or among them will be set forth, or will be calculable from the information set forth, in the applicable prospectus supplement. See the sections entitled "About This Prospectus" and "Plan of Distribution" for more information. No securities may be sold by us without delivery of this prospectus and the applicable prospectus supplement describing the method and terms of the offering of such securities.

We are a "controlled company" under the listing requirements of Nasdaq, or the Nasdaq Marketplace Rules, and take advantage of certain "controlled company" exemptions under the Nasdaq Marketplace Rules. See "Prospectus Summary—Implications of Being a Controlled Company."

We are an "emerging growth company" within the meaning of the Jumpstart Our Business Startups Act of 2012, or the JOBS Act, and are subject to reduced public company reporting requirements. See "Prospectus Summary—Implications of Being an Emerging Growth Company."

Our Class A common stock is listed on the Nasdaq Capital Market under the symbol "ORGO." On September 3, 2019, the last reported sale price of our Class A common stock on the Nasdaq Capital Market was \$4.43 per share. There is currently no market for the other securities we may offer.

Investing in these securities involves significant risks. See "<u>Risk Factors</u>" beginning on page 4 and included in any accompanying prospectus supplement and in the documents incorporated by reference in this prospectus for a discussion of the factors you should carefully consider before deciding to purchase these securities.

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

The date of this prospectus is September 23, 2019.

Table of Contents

	Page
ABOUT THIS PROSPECTUS	ii
CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS	iii
PROSPECTUS SUMMARY	1
RISK FACTORS	4
USE OF PROCEEDS	5
DESCRIPTION OF CAPITAL STOCK	6
DESCRIPTION OF DEBT SECURITIES	10
DESCRIPTION OF WARRANTS	18
DESCRIPTION OF UNITS	20
FORMS OF SECURITIES	21
PLAN OF DISTRIBUTION	23
LEGAL MATTERS	27
EXPERTS	27
WHERE YOU CAN FIND MORE INFORMATION	27
INFORMATION INCORPORATED BY REFERENCE	28

i

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, which we refer to as the SEC, utilizing a "shelf" registration process. Under this shelf registration process, we may from time to time sell any combination of the securities described in this prospectus in one or more offerings for an aggregate offering price of up to \$100,000,000.00.

This prospectus provides you with a general description of the securities we may offer. Each time we sell securities, we will provide a prospectus supplement containing specific information about the terms of the securities being offered. That prospectus supplement may include a discussion of any risk factors or other special considerations that apply to those securities. The prospectus supplement may also add to, update or change the information in this prospectus. If there is any inconsistency between the information in this prospectus and in a prospectus supplement, you should rely on the information in that prospectus supplement. You should read both this prospectus and any prospectus supplement together with additional information described under the heading "Where You Can Find More Information."

When acquiring securities, you should rely only on the information provided in this prospectus and in the related prospectus supplement, including any information incorporated by reference. No one is authorized to provide you with information different from that which is contained, or deemed to be contained, in the prospectus and related prospectus supplement. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This prospectus and the accompanying prospectus supplement, if any, do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the securities described in the accompanying prospectus supplement or an offer to sell or the solicitation of an offer to buy such securities in any circumstances in which such offer or solicitation is unlawful. We are not offering the securities in any state where the offer is prohibited. You should not assume that the information in this prospectus, any prospectus supplement or any document incorporated by reference is truthful or complete as of any date other than the date indicated on the cover page of the relevant document.

Unless otherwise stated or unless the context otherwise requires, all references to "we," "us," "our," "our company" or "the Company" in this prospectus refer collectively to Organogenesis Holdings Inc., a Delaware corporation, and its subsidiaries.

ii

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the information incorporated by reference in this prospectus include "forward-looking statements" within the meaning of Section 27A of the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. All statements, other than statements of historical facts, contained or incorporated by reference in this prospectus, including statements regarding our strategy, future operations, future financial position, future revenues, projected costs, prospects, plans and objectives of management, are forward-looking statements. The words "anticipate," "believe," "estimate," "expect," "intend," "may," "plan," "predict," "project," "target," "potential," "will," "would," "could," "should," "continue" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. Forward-looking statements with respect to our operations, strategies, prospects and other aspects of our business are based on current expectations that are subject to known and unknown risks and uncertainties, which could cause actual results or outcomes to differ materially from expectations expressed or implied by such forward-looking statements. These factors include, but are not limited to the following:

- we have incurred significant losses since inception and anticipate that we will incur substantial losses for the foreseeable future;
- we face significant and continuing competition, which could adversely affect our business, results of operations and financial condition;
- rapid technological change could cause our products to become obsolete and if we do not enhance our product offerings through our research and development efforts, we may be unable to effectively compete;
- to be commercially successful, we must convince physicians that our products are safe and effective alternatives to existing treatments and that our products should be used in their procedures;
- our ability to raise funds to expand our business;
- the impact of any changes to the reimbursement levels for our products and the impact to us of the loss of preferred "pass through" status for PuraPly AM and PuraPly on October 1, 2020;
- our ability to maintain compliance with applicable Nasdaq Marketplace Rules;
- changes in applicable laws or regulations;
- the U.S. Food and Drug Administration may determine that certain of our products that are, or are derived from, human cells or tissues, including NuCel and ReNu, do not qualify for regulation solely under Section 361 of the Public Health Service Act, and may require that the products be removed from the market until we obtain premarket clearance or approval;
- interruptions in the supply of our products, including as a result of the disruptions in the availability of tissue from human donors, or inventory loss may adversely affect our business, results of operations and financial condition;
- the possibility that we may be adversely affected by other economic, business, and/or competitive factors; and
- other risks and uncertainties described in our filings with the Securities and Exchange Commission.

We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. See the "Risk Factors" section of this prospectus and our most recent Annual Report on Form 10-K, as amended, for more information. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments that we may make. We do not assume any obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

iii

PROSPECTUS SUMMARY

This section contains a general summary of the information contained in this prospectus. It may not include all of the information that is important to you. You should read the entire prospectus, any accompanying prospectus supplement and the documents incorporated by reference before making an investment decision.

The Company

We are a leading regenerative medicine company focused on the development, manufacture and commercialization of solutions for the Advanced Wound Care and Surgical & Sports Medicine markets. Our products have been shown through clinical and scientific studies to support and in some cases accelerate tissue healing and improve patient outcomes. We are advancing the standard of care in each phase of the healing process through multiple breakthroughs in tissue engineering and cell therapy. Our solutions address large and growing markets driven by aging demographics and increases in comorbidities such as diabetes, obesity, cardiovascular and peripheral vascular disease and smoking. We offer our differentiated products and in-house customer support to a wide range of health care customers including hospitals, wound care centers, government facilities, ambulatory surgical centers ("ASCs") and physician offices. Our mission is to provide integrated healing solutions that substantially improve medical outcomes and the lives of patients while lowering the overall cost of care.

We offer a comprehensive portfolio of products in the markets we serve that address patient needs across the continuum of care. We have and intend to continue to generate data from clinical trials, real world outcomes and health economics research that validate the clinical efficacy and value proposition offered by our products. The majority of the existing and pipeline products in our portfolio have premarket approval applications ("PMA") approval, biologics license applications ("BLA") approval or 510(k) clearance from the United States Food and Drug Administration (the "FDA"). Given the extensive time and cost required to conduct clinical trials and receive FDA approvals, we believe that our data and regulatory approvals provide us a strong competitive advantage. Our product development expertise and multiple technology platforms provide a robust product pipeline, which we believe will drive future growth.

Historically we have concentrated our efforts in the Advanced Wound Care market. In 2017, we acquired NuTech Medical which further expanded our wound care portfolio and broadened our addressable market to include the Surgical & Sports Medicine market. We believe the expanded product portfolio facilitated by this acquisition is enhancing the ability of our sales representatives to reach and penetrate customer accounts, contributing to strong growth over time.

In the Advanced Wound Care market, we focus on the development and commercialization of advanced wound care products for the treatment of chronic and acute wounds, primarily in the outpatient setting. We have a comprehensive portfolio of regenerative medicine products, capable of supporting patients from early in the wound healing process through to wound closure regardless of wound type. Our Advanced Wound Care products include Apligraf for the treatment of venous leg ulcers ("VLUs") and diabetic foot ulcers ("DFUs"); Dermagraft for the treatment of DFUs; PuraPly AM to address biofilm across a broad variety of wound types; and Affinity and NuShield to address a variety of wound sizes and types. We have a highly trained and specialized direct wound care sales force paired with exceptional customer support services.

In the Surgical & Sports Medicine market, we focus on products that support the healing of musculoskeletal injuries, including degenerative conditions such as osteoarthritis ("OA") and tendonitis. We are leveraging our regenerative medicine capabilities in this attractive, adjacent market. Our Surgical & Sports Medicine products include ReNu for in-office joint and tendon applications; NuCel for bony fusion in the spine and extremities; NuShield and Affinity for surgical application in targeted soft tissue repairs; and PuraPly AM for surgical

treatment of open wounds. We currently sell these products through independent agencies and our growing direct sales force.

We were formerly a special purpose acquisition company, incorporated under the laws of the Cayman Islands on December 4, 2015 under the name Avista Healthcare Public Acquisition Corp. ("AHPAC"), for the purpose of effecting a merger, share exchange, asset acquisition, share purchase, reorganization or similar business combination with one or more businesses. On December 10, 2018, pursuant to the terms of that certain Agreement and Plan of Merger, dated as of August 17, 2018 (as amended, the "Merger Agreement"), by and among AHPAC, Avista Healthcare Merger Sub, Inc. ("Merger Sub") and Organogenesis Inc., among other things, (i) AHPAC transferred by way of continuation out of the Cayman Islands into the State of Delaware as a corporation incorporated under the laws of the State of Delaware under Section 388 of the Delaware General Corporation Law; and (ii) Merger Sub merged with and into Organogenesis Inc., the separate corporate existence of Merger Sub ceased and Organogenesis Inc. survived as a direct wholly owned subsidiary of AHPAC, which changed its name to Organogenesis Holdings Inc.

Executive Offices

Our principal executive offices are located at 85 Dan Road, Canton, MA 02021, and our telephone number is (781) 575-0775. Our corporate website address is www.organogenesis.com. The information contained on, or that may be accessed through, our website is not part of, and is not incorporated into, this prospectus.

The Securities That May Be Offered

With this prospectus, we may offer securities with an aggregate offering price of up to \$100,000,000. Each time we offer securities with this prospectus, we will provide offerees with a prospectus supplement that will contain the specific terms of the offering.

Risks Affecting Us

Investing in our securities involves significant risks. You should carefully consider the risks and uncertainties described in this prospectus and any accompanying prospectus supplement, including the risk factors set forth in our filings with the SEC that are incorporated by reference herein, including the risk factors in our most recent Annual Report on Form 10-K, before making an investment decision pursuant to this prospectus and any accompanying prospectus supplement relating to a specific offering.

Our business, financial condition and results of operations could be materially and adversely affected by any or all of these risks or by additional risks and uncertainties not presently known to us or that we currently deem immaterial that may adversely affect us in the future.

Implications of Being a Controlled Company

We are presently a "controlled company" under the Nasdaq Marketplace Rules because Alan A. Ades, Albert Erani and Glenn H. Nussdorf, members of our board of directors, together with Dennis Erani, Starr Wisdom and certain of their respective affiliates, control a majority of the voting power of our outstanding Class A common stock. As a "controlled company" we are entitled to rely on certain exemptions to Nasdaq's corporate governance requirements, including the requirement (i) that a majority of the board of directors consist of independent directors, (ii) to have a governance committee that is composed entirely of independent directors with a written charter addressing the committee's purpose and responsibilities, (iii) to have a compensation committee that is composed entirely of independent directors with a written charter addressing the committee's

purpose and responsibilities, (iv) that the compensation committee consider certain independence factors when engaging legal counsel and other committee advisors and (v) for an annual performance evaluation of the governance and compensation committees. We expect to continue to be treated as a "controlled company" for the foreseeable future.

Implications of Being an Emerging Growth Company

We qualify as an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. As an emerging growth company, we may take advantage of disclosure and other requirements that are reduced in comparison with those otherwise applicable generally to public companies.

We may take advantage of these reduced requirements until the earliest to occur of (i) the last day of the fiscal year (a) following October 14, 2021, the fifth anniversary of our initial public offering, (b) in which the Company has total annual gross revenue of at least \$1.07 billion or (c) in which the Company is deemed to be a large accelerated filer, which means the market value of the Company Class A common stock that are held by non-affiliates exceeds \$700 million as of the last business day of the Company's prior second fiscal quarter, and (ii) the date on which the Company has issued more than \$1.0 billion in non-convertible debt during the prior three-year period. We may choose to take advantage of some, but not all, of the available exemptions. We have taken advantage of certain reduced reporting burdens in this prospectus. Accordingly, the information contained herein may be different than the information you receive from other public companies in which you hold stock.

In addition, the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. This allows an emerging growth company to delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have elected not to opt out of such extended transition period, which means that when a standard is issued or revised and it has different application dates for public or private companies, we, as an emerging growth company, can adopt the new or revised standard at the time private companies adopt the new or revised standard. This may make comparison of our financial statements with another public company which is neither an emerging growth company nor an emerging growth company which has opted out of using the extended transition period difficult or impossible because of the potential differences in accounting standards used.

RISK FACTORS

Investment in any securities offered pursuant to this prospectus, any related prospectus supplement or any related free writing prospectus involves risks. You should carefully consider the risk factors incorporated by reference to our most recent annual report on Form 10-K, any subsequent quarterly reports on Form 10-Q and any current reports on Form 8-K filed subsequent to the end of the year covered by such annual report, together with any amendments or supplements thereto, and all other information contained or incorporated by reference into this prospectus, as updated by our subsequent filings under the Exchange Act, and the risk factors (if any) and other information contained in any applicable prospectus supplement or free writing prospectus, before acquiring any of such securities. The occurrence of any of these risks might cause you to lose all or part of your investment in the offered securities. Please also refer to the section above entitled "Cautionary Note Regarding Forward-Looking Statements." Additional risks not known to us or that we believe are immaterial may also significantly impair our business operations and could result in a loss of all or part of your investment in the offered securities.

USE OF PROCEEDS

Except as otherwise provided in the applicable prospectus supplement, we intend to use the net proceeds from the sale of the securities offered by this prospectus for general corporate purposes, which may include working capital, capital expenditures, commercialization expenditures, manufacturing expenditures, research and development expenditures, regulatory affairs expenditures, clinical trial expenditures, acquisitions, and the repayment or refinancing of indebtedness or the repurchase of capital stock. Additional information on the use of net proceeds from the sale of securities offered by this prospectus may be set forth in the prospectus supplement relating to that offering.

DESCRIPTION OF CAPITAL STOCK

The following summary of the material terms of our securities is not intended to be a complete summary of the rights and preferences of such securities. We urge you to read our certificate of incorporation in its entirety for a complete description of the rights and preferences of our securities.

Authorized and Outstanding Stock

Our certificate of incorporation authorizes the issuance of 421,000,000 shares of capital stock, consisting of (i) 420,000,000 shares of common stock, including 400,000,000 shares of Class A common stock, par value \$0.0001 per share and 20,000,000 shares of Class B common stock, par value \$0.0001 per share and 20,000,000 shares of Class B common stock, par value \$0.0001 per share. As of August 21, 2019, there were 94,599,751 shares of Class A common stock outstanding, no shares of Class B common stock were outstanding and no shares of preferred stock were outstanding. The outstanding shares of our Class A common stock are duly authorized, validly issued, fully paid and non-assessable.

Class A Common Stock

Voting Power

Except as otherwise required by law or as otherwise provided in any certificate of designation for any series of preferred stock, the holders of Class A common stock possess all voting power for the election of our directors and all other matters requiring stockholder action and will at all times vote together as one class on all matters submitted to a vote of the stockholders. Holders of our Class A common stock are entitled to one vote per share on matters to be voted on by stockholders.

Dividends

Holders of Class A common stock will be entitled to receive such dividends and other distributions, if any, as may be declared from time to time by the board of directors in its discretion out of funds legally available therefor and shall share equally on a per share basis in such dividends and distributions.

Liquidation, Dissolution and Winding Up

In the event of the voluntary or involuntary liquidation, dissolution, or winding-up of the Company, holders of Class A common stock will be entitled to receive an equal amount per share of all of our assets of whatever kind available for distribution to stockholders, after the rights of our creditors have been satisfied.

Preemptive or Other Rights

Our stockholders have no preemptive or other subscription rights and there will be no sinking fund or redemption provisions applicable to our Class A common stock.

Election of Directors

Under our certificate of incorporation, the board of directors consists of a single class, with all directors serving until our next annual meeting. There is no cumulative voting with respect to the election of directors, with the result that directors will be elected by a majority of the votes cast at an annual meeting of stockholders by holders of our Class A common stock.

Preferred Stock

Our board of directors is authorized to issue preferred stock in one or more series and to fix and designate the powers, designations, preferences and relative, participating, optional or other special rights of each class of



preferred stock or series thereof and the qualifications, limitations or restrictions, if any, of such preferred stock. Our board of directors may fix the number of shares constituting any series of preferred stock and the designations of the series.

We will fix the powers, designations, preferences, rights, qualifications, limitations, restrictions and other terms of the preferred stock of each series by filing a certificate of designations relating to each series. When preferred stock is offered, a prospectus supplement, information incorporated by reference or a free writing prospectus, as applicable, will explain the terms of any preferred stock offered, including:

- the maximum number of shares in the series and the distinctive designation;
- the terms on which dividends will be paid, if any;
- the terms on which the shares may be redeemed, if at all;
- the liquidation preference, if any;
- the terms of any retirement or sinking fund for the purchase or redemption of the shares of the series, including any restrictions on repurchase or redemption during any arrearage in the payment of dividends or sinking fund installments;
- the terms and conditions, if any, on which the shares of the series will be convertible into, or exchangeable for, shares of any other class or classes of capital stock;
- the voting rights, if any, of the shares of the series (provided that different series of preferred stock shall not be construed to constitute different classes of shares for the purposes of voting by classes unless so provided by our certificate of incorporation or by law);
- whether the rights of the holders of shares of the series may be modified otherwise than by a vote of a majority of the shares outstanding, voting as a class, and if so, under what circumstances;
- pre-emptive rights, if any;
- transfer restrictions, if any; and
- any or all other preferences and relative, participating, optional or other special rights or qualifications, limitations or restrictions of the shares, to the extent now or hereafter permitted by the General Corporation Law of Delaware.

We will file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference from another report that we file with the SEC, the certificate of designations that describes the terms of any series of preferred stock we offer under this prospectus before the issuance of shares of that series of preferred stock. You should read any prospectus supplement, information incorporated by reference and any free writing prospectus that we may authorize to be provided to you related to the series of preferred stock being offered, as well as the certificate of designations that contains the terms of the applicable series of preferred stock.

Options

As of August 21, 2019, options to purchase 6,633,648 shares of our Class A common stock were outstanding under our equity compensation plans, at a weighted average exercise price of \$2.10 per share.

Warrants

As of August 21, 2019, we had outstanding warrants to purchase 470,299 shares of our Class A common stock at a weighted average exercise price of \$11.50 per share. As previously disclosed, in connection with our recently completed exchange offer, we executed an amendment to the warrant agreement governing our

outstanding warrants, pursuant to which, we will exchange all remaining outstanding warrants on September 3, 2019 for approximately 80,422 shares of our Class A common stock, in accordance with the terms of the warrant amendment.

Dividends

We have not paid any cash dividends on our Class A common stock to date. The payment of cash dividends in the future will be dependent upon the Company's revenues and earnings, if any, capital requirements and general financial condition. The payment of any cash dividends will be within the discretion of the board of directors at such time. In addition, the Company is not currently contemplating and does not anticipate declaring any stock dividends in the foreseeable future. Further, the credit agreement governing our credit facility imposes significant operating and financial restrictions and limit our ability to declare dividends.

Certain Anti-Takeover Provisions of Delaware Law, the Company's Certificate of Incorporation and Bylaws

We are a corporation incorporated under the laws of the State of Delaware, and are subject to the provisions of Section 203 of the DGCL, which we refer to as "Section 203," regulating corporate takeovers.

Section 203 prevents certain Delaware corporations, under certain circumstances, from engaging in a "business combination" with:

- a stockholder who owns fifteen percent (15%) or more of our outstanding voting stock (otherwise known as an "interested stockholder");
- an affiliate of an interested stockholder; or
- an associate of an interested stockholder, for three years following the date that the stockholder became an interested stockholder.

A "business combination" includes a merger or sale of more than ten percent (10%) of our assets. However, the above provisions of Section 203 do not apply if:

- our board of directors approves the transaction that made the stockholder an "interested stockholder," prior to the date of the transaction;
- after the completion of the transaction that resulted in the stockholder becoming an interested stockholder, that stockholder owned at least eighty-five percent (85%) of our voting stock outstanding at the time the transaction commenced, other than statutorily excluded shares of Class A common stock; or
- on or subsequent to the date of the transaction, the business combination is approved by our board of directors and authorized at a meeting of our stockholders by an affirmative vote of at least two-thirds of the outstanding voting stock not owned by the interested stockholder.

In addition, our certificate of incorporation does not provide for cumulative voting in the election of directors. Our board of directors is empowered to elect a director to fill a vacancy created by the expansion of the board of directors or the resignation, death, or removal of a director in certain circumstances; and our advance notice provisions require that stockholders must comply with certain procedures in order to nominate candidates to our board of directors or to propose matters to be acted upon at a stockholders' meeting.

Our authorized but unissued Class A common stock and preferred stock are available for future issuances without stockholder approval and could be utilized for a variety of corporate purposes, including future offerings to raise additional capital, acquisitions and employee benefit plans. The existence of authorized but unissued and unreserved Class A common stock and preferred stock could render more difficult or discourage an attempt to obtain control of us by means of a proxy contest, tender offer, merger or otherwise.

Registration Rights

At the closing of the Business Combination, the Company, the Sponsor and certain of the Company's stockholders entered into the Amended and Restated Registration Rights Agreement. With certain limited exceptions, the Founder Shares are not transferable, assignable or salable (except to our officers and directors and other persons or entities affiliated with the Sponsor, each of whom will be subject to the same transfer restrictions) until the earlier to occur of: (a) December 10, 2019, (b) the first date the closing price of the Class A common stock equals or exceeds \$12.00 per share (as adjusted for stock splits, stock dividends, reorganizations, recapitalizations and the like) for any 20 trading days within any 30-trading day period commencing at least 150 days after December 10, 2018 or (c) the date on which the Company completes a liquidation, merger, stock exchange, reorganization or other similar transaction which results in all of the Company's stockholders having the right to exchange their Class A common stock for cash, securities or other property; unless the board of directors has authorized a release or waiver from such lock-up.

These stockholders party to the Amended and Restated Registration Rights Agreement and their permitted transferees are entitled to certain registration rights described therein. Among other things, pursuant to the Amended and Restated Registration Rights Agreement, these stockholders are entitled to participate in three demand registrations, and will also have certain "piggyback" registration rights with respect to registration statements, subject to cut-back provisions. We will bear the expenses incurred in connection with the filing of any such registration statements, other than certain underwriting discounts, selling commissions and expenses related to the sale of shares. We filed a re-sale registration on Form S-3 pursuant to the terms of the Amended and Restated Registration Rights Agreement on December 24, 2018 that was declared effective by the SEC on February 12, 2019.

Transfer Agent and Warrant Agent

The transfer agent for our Class A common stock and warrant agent for our warrants is Continental Stock Transfer & Trust Company. We have agreed to indemnify Continental Stock Transfer & Trust Company in its roles as transfer agent and warrant agent, its agents and each of its stockholders, directors, officers and employees against all liabilities, including judgments, costs and reasonable counsel fees that may arise out of acts performed or omitted for its activities in that capacity, except for any liability due to any gross negligence, willful misconduct or bad faith of the indemnified person or entity.

DESCRIPTION OF DEBT SECURITIES

The following description, together with the additional information we include in any applicable prospectus supplement or information incorporated by reference, summarizes certain general terms and provisions of the debt securities that we may offer under this prospectus. When we offer any particular series of debt securities, a prospectus supplement or information incorporated by reference, as applicable, will explain the terms of those debt securities, which may differ from and will modify or replace the terms described below. We urge you to read the applicable prospectus supplement and information incorporated by reference, as they will indicate the general terms and provisions that apply to a particular series of debt securities.

We may issue debt securities either separately, or together with, or upon the conversion or exercise of or in exchange for, other securities described in this prospectus. Debt securities may be our senior, senior subordinated or subordinated obligations and, unless otherwise specified in a prospectus supplement or information incorporated by reference, the debt securities will be our direct, unsecured obligations and may be issued in one or more series.

The debt securities will be issued under an indenture between us and a trustee to be identified in the applicable prospectus supplement. We have summarized select portions of the indenture below. The summary is not complete. The form of the indenture has been filed as an exhibit to the registration statement of which this prospectus is a part, and you should read the indenture for provisions that may be important to you.

General

The terms of each series of debt securities will be established by or pursuant to a resolution of our board of directors and set forth or determined in the manner provided in a resolution of our board of directors, in an officer's certificate or by a supplemental indenture. The particular terms of each series of debt securities will be described in a prospectus supplement or information incorporated by reference relating to such series.

We can issue an unlimited amount of debt securities under the indenture, and those securities may be in one or more series with the same or various maturities, at par, at a premium, or at a discount. With respect to any series of debt securities we offer, we will set forth in a prospectus supplement or information incorporated by reference the aggregate principal amount and the following terms of the debt securities, if applicable:

- the title and ranking of the debt securities (including the terms of any subordination provisions);
- the price or prices (expressed as a percentage of the principal amount) at which we will sell the debt securities;
- any limit on the aggregate principal amount of the debt securities;
- the date or dates on which the principal of the securities of the series is payable;
- the rate or rates (which may be fixed or variable) per annum or the method used to determine the rate or rates (including any commodity, commodity index, stock exchange index or financial index) at which the debt securities will bear interest, the date or dates from which interest will accrue, the date or dates on which interest will commence and be payable and any regular record date for the interest payable on any interest payment date;
- the place or places where principal of, and interest, if any, on the debt securities will be payable (and the method of such payment), where the securities of such series may be surrendered for registration of transfer or exchange, and where notices and demands to us in respect of the debt securities may be delivered;
- the period or periods within which, the price or prices at which and the terms and conditions upon which we may redeem the debt securities;

Table of Contents

- any obligation we may have to redeem or purchase the debt securities pursuant to any sinking fund or analogous provisions or at the option of a holder or holders of debt securities and the period or periods within which, the price or prices at which and the terms and conditions upon which securities of the series shall be redeemed or purchased, in whole or in part, pursuant to such obligation;
- the dates on which and the price or prices at which we will repurchase debt securities at the option of the holders of debt securities and other detailed terms and provisions of these repurchase obligations;
- the denominations in which the debt securities will be issued, if other than denominations of \$1,000 and any integral multiple thereof;
- whether the debt securities will be issued in the form of certificates issued in definitive form or as one or more global securities representing the entire issuance, as described under "Forms of Securities," below;
- the portion of the principal amount of the debt securities payable upon declaration of acceleration of the maturity date, if other than the principal amount;
- the currency of denomination of the debt securities, which may be United States Dollars or any foreign currency, and if such currency of denomination is a composite currency, the agency or organization, if any, responsible for overseeing such composite currency;
- the designation of the currency, currencies or currency units in which payment of principal of, premium (if any) and interest on the debt securities will be made;
- if payments of principal of, premium (if any) or interest on the debt securities will be made in one or more currencies or currency units other than that or those in which the debt securities are denominated, the manner in which the exchange rate with respect to these payments will be determined;
- the manner in which the amounts of payment of principal of, premium (if any) or interest on the debt securities will be determined, if these
 amounts may be determined by reference to an index based on a currency or currencies other than that in which the debt securities are
 denominated or designated to be payable or by reference to a commodity, commodity index, stock exchange index or financial index;
- any provisions relating to any security provided for the debt securities;
- any addition to, deletion of or change in the Events of Default described in this prospectus or in the indenture with respect to the debt securities and any change in the acceleration provisions described in this prospectus or in the indenture with respect to the debt securities;
- any addition to, deletion of or change in the covenants described in this prospectus or in the indenture with respect to the debt securities;
- any depositaries, interest rate calculation agents, exchange rate calculation agents or other agents with respect to the debt securities;
- the provisions, if any, relating to conversion or exchange of any securities of such series, including if applicable, the conversion or exchange price and period, provisions as to whether conversion or exchange will be mandatory, the events requiring an adjustment of the conversion or exchange price and provisions affecting conversion or exchange;
- United States federal income tax consequences related to the debt securities;
- any other terms of the debt securities, which may supplement, modify or delete any provision of the indenture as it applies to that series, including any terms that may be required under applicable law or regulations or advisable in connection with the marketing of the securities; and
- whether any of our subsidiaries will guarantee the debt securities, including the terms of subordination, if any, of such guarantees.

We may issue debt securities that provide for an amount less than their stated principal amount to be due and payable upon declaration of acceleration of their maturity pursuant to the terms of the indenture. We will provide you with information regarding any special considerations applicable to any of these debt securities in the applicable prospectus supplement or information incorporated by reference.

If we denominate the purchase price of any of the debt securities in a foreign currency or currencies or a foreign currency unit or units, or if the principal of and any premium (if any) and interest on any series of debt securities is payable in a foreign currency or currencies or a foreign currency unit or units, we will provide you with information on the restrictions, elections, general tax considerations, specific terms and other information with respect to that issue of debt securities and such foreign currency or currencies or foreign currency unit or units in the applicable prospectus supplement or information incorporated by reference.

Transfer and Exchange; Global Securities

Each debt security may be represented by either a certificate issued in definitive form to a particular purchaser or by one or more global securities representing the entire issuance of debt securities, as described below under "Forms of Securities" and in Section 2.14 of the form of indenture.

If we issue certificated debt securities, you may transfer or exchange such certificates at any office we maintain for this purpose in accordance with the terms of the indenture. No service charge will be made for any transfer or exchange of certificated debt securities, but we may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection with a transfer or exchange. You may effect the transfer of certificated debt securities and the right to receive the principal of, and premium (if any) and interest on, certificated debt securities only by surrendering the certificate representing those certificated debt securities and either the reissuance by us or the trustee of the certificate to the new holder or the issuance by us or the trustee of a new certificate to the new holder.

Payment and Paying Agents

Unless otherwise indicated in a prospectus supplement or information incorporated by reference, the provisions described in this paragraph will apply to the debt securities. Payment of interest on a debt security on any interest payment date will be made to the person in whose name the debt security is registered at the close of business on the record date for the applicable payment. Payment on debt securities of a particular series will be payable at the office of a paying agent or paying agents designated by us. However, at our option, we may pay interest by mailing a check to the record holder. The trustee will be designated as our initial paying agent.

We may also add, replace or terminate paying agents from time to time, or change the office of any paying agent, as set forth in a prospectus supplement or information incorporated by reference. However, we will be required to maintain a paying agent in each place of payment for the debt securities of a particular series.

All moneys paid by us to a paying agent for payment on any debt security that remain unclaimed for a period of two years after such payment was due will be repaid to us. Thereafter, the holder may look only to us for such payment.

Covenants

We will set forth in the applicable prospectus supplement or information incorporated by reference any restrictive covenants applicable to any issue of debt securities.

No Protection In the Event of a Change of Control

Unless we state otherwise in the applicable prospectus supplement or information incorporated by reference, the debt securities will not contain any provisions which may afford holders of the debt securities protection in

the event we have a change in control or in the event of a highly leveraged transaction (whether or not such transaction results in a change in control) which could adversely affect holders of debt securities.

Consolidation, Merger and Sale of Assets

We may not consolidate with or merge with or into, or convey, transfer or lease all or substantially all of our properties and assets to any person (a "successor person") unless:

- we are the surviving corporation or the successor person is a corporation organized and validly existing under the laws of any U.S. domestic jurisdiction and expressly assumes our obligations on any debt securities and under the related indenture; and
- immediately after giving effect to the transaction, no Default or Event of Default, shall have occurred and be continuing.

Notwithstanding the above, any of our subsidiaries may consolidate with, merge into or transfer all or part of its properties and assets to us.

Events of Default

"Event of Default" means with respect to any series of debt securities, any of the following:

- default in the payment of any interest upon any debt security of that series when it becomes due and payable, and continuance of such default for a period of 30 days (unless the entire amount of the payment is deposited by us with the trustee or with a paying agent prior to the expiration of the 30-day period);
- default in the payment of principal of any security of that series at its maturity;
- default in the performance or breach of any other covenant or warranty by us in the indenture (other than a covenant or warranty that has been included in the indenture solely for the benefit of a series of debt securities other than that series), which default continues uncured for a period of 60 days after we receive written notice from the trustee or we and the trustee receive written notice from the holders of not less than 25% in principal amount of the outstanding debt securities of that series as provided in the indenture;
- certain voluntary or involuntary events of bankruptcy, insolvency or reorganization of our company; or
- any other Event of Default provided with respect to debt securities of that series that is described in the applicable prospectus supplement or information incorporated by reference.

No Event of Default with respect to a particular series of debt securities (except as to certain events of bankruptcy, insolvency or reorganization) necessarily constitutes an Event of Default with respect to any other series of debt securities. The occurrence of certain Events of Default or an acceleration under the indenture may constitute an event of default under certain indebtedness of ours or our subsidiaries outstanding from time to time.

If an Event of Default with respect to debt securities of any series at the time outstanding occurs and is continuing, then the trustee or the holders of not less than 25% in principal amount of the outstanding debt securities of that series may, by a notice in writing to us (and to the trustee if given by the holders), declare to be due and payable immediately the principal of (or, if the debt securities of that series are discount securities, that portion of the principal amount as may be specified in the terms of that series) and accrued and unpaid interest, if any, on all debt securities of that series. In the case of an Event of Default resulting from certain events of bankruptcy, insolvency or reorganization, the principal (or such specified amount) of and accrued and unpaid interest, if any, on all outstanding debt securities will become and be immediately due and payable without any

Table of Contents

declaration or other act on the part of the trustee or any holder of outstanding debt securities. At any time after a declaration of acceleration with respect to debt securities of any series has been made, but before a judgment or decree for payment of the money due has been obtained by the trustee, the holders of a majority in principal amount of the outstanding debt securities of that series may rescind and annul the acceleration if all Events of Default, other than the non-payment of accelerated principal and interest, if any, with respect to debt securities of that series, have been cured or waived as provided in the indenture. We refer you to the prospectus supplement or information incorporated by reference relating to any series of debt securities that are discount securities for the particular provisions relating to acceleration of a portion of the principal amount of such discount securities upon the occurrence of an Event of Default.

The indenture provides that the trustee will be under no obligation to exercise any of its rights or powers under the indenture unless the trustee receives indemnity satisfactory to it against any cost, liability or expense which might be incurred by it in exercising such right of power. Subject to certain rights of the trustee, the holders of a majority in principal amount of the outstanding debt securities of any series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee or exercising any trust or power conferred on the trustee with respect to the debt securities of that series.

No holder of any debt security of any series will have any right to institute any proceeding, judicial or otherwise, with respect to the indenture or for the appointment of a receiver or trustee, or for any remedy under the indenture, unless:

- that holder has previously given to the trustee written notice of a continuing Event of Default with respect to debt securities of that series; and
- the holders of not less than 25% in principal amount of the outstanding debt securities of that series have made written request, and offered
 reasonable indemnity or security, to the trustee to institute the proceeding as trustee, and the trustee has not received from the holders of
 not less than a majority in principal amount of the outstanding debt securities of that series a direction inconsistent with that request and
 has failed to institute the proceeding within 60 days.

Notwithstanding any other provision in the indenture, the holder of any debt security will have an absolute and unconditional right to receive payment of the principal of and any interest on that debt security on or after the due dates expressed in that debt security and to institute suit for the enforcement of payment.

The indenture requires us, within 120 days after the end of our fiscal year, to furnish to the trustee a statement as to compliance with the indenture. If a Default or Event of Default occurs and is continuing with respect to the securities of any series and if it is known to a responsible officer of the trustee, the trustee shall send to each Securityholder of the securities of that series notice of a Default or Event of Default within 90 days after it occurs. The indenture provides that the trustee may withhold notice to the holders of debt securities of any series of any Default or Event of Default (except in payment on any debt securities of that series) with respect to debt securities of that series if the trustee determines in good faith that withholding notice is in the interest of the holders of those debt securities.

Modification and Waiver

We and the trustee may modify and amend the indenture or the debt securities of any series without the consent of any holder of any debt security:

- to cure any ambiguity, defect or inconsistency;
- to comply with covenants in the indenture as described above under "Description of the Debt Securities—Consolidation, Merger and Sale of Assets";
- to provide for uncertificated securities in addition to or in place of certificated securities;

- to add guarantees with respect to debt securities of any series or secure debt securities of any series;
- to surrender any of our rights or powers under the indenture;
- to add covenants or events of default for the benefit of the holders of debt securities of any series;
- to comply with the applicable procedures of the applicable depositary;
- to make any change that does not adversely affect the rights of any holder of debt securities;
- to provide for the issuance of and establish the form and terms and conditions of debt securities of any series as permitted by the indenture;
- to effect the appointment of a successor trustee with respect to the debt securities of any series and to add to or change any of the provisions of the indenture to provide for or facilitate administration by more than one trustee; or
- to comply with requirements of the SEC in order to effect or maintain the qualification of the indenture under the Trust Indenture Act of 1939.

We may also modify and amend the indenture with the consent of the holders of at least a majority in principal amount of the outstanding debt securities of each series affected by the modifications or amendments. We may not make any modification or amendment without the consent of the holders of each affected debt security then outstanding if that amendment will:

- reduce the amount of debt securities whose holders must consent to an amendment, supplement or waiver;
- reduce the rate of or extend the time for payment of interest (including default interest) on any debt security;
- reduce the principal of or change the fixed maturity of any debt security or reduce the amount of, or postpone the date fixed for, the
 payment of any sinking fund or analogous obligation with respect to any series of debt securities;
- reduce the principal amount of discount securities payable upon acceleration of maturity;
- waive a default in the payment of the principal of or interest on any debt security (except a rescission of acceleration of the debt securities of any series by the holders of at least a majority in aggregate principal amount of the then outstanding debt securities of that series and a waiver of the payment default that resulted from such acceleration);
- make the principal of or interest on any debt security payable in currency other than that stated in the debt security;
- make any change to certain provisions of the indenture relating to, among other things, the right of holders of debt securities to receive
 payment of the principal of and interest on those debt securities and to institute suit for the enforcement of any such payment and to
 waivers or amendments; or
- waive a redemption payment with respect to any debt security.

Except for certain specified provisions, the holders of at least a majority in principal amount of the outstanding debt securities of any series may on behalf of the holders of all debt securities of that series waive our compliance with provisions of the indenture. The holders of a majority in principal amount of the outstanding debt securities of any series may on behalf of the holders of all the debt securities of such series waive any past default under the indenture with respect to that series and its consequences, except a default in the payment of the principal of or any interest on any debt security of that series; provided, however, that the holders of a majority in principal amount of the outstanding debt securities of any series may rescind an acceleration and its consequences, including any related payment default that resulted from the acceleration.

Satisfaction and Discharge of Indenture; Defeasance of Debt Securities and Certain Covenants in Certain Circumstances

Satisfaction and Discharge. The indenture provides that we may be discharged from our obligations under the indenture with respect to a series of debt securities (subject to certain exceptions) when, among other things, all of the debt securities of that series have been delivered to the trustee for cancellation and we have paid or caused to be paid all other sums payable under the indenture with respect to such debt securities, or, alternatively, when the following conditions (among others) are met:

- all of the debt securities of that series that have not been delivered for cancellation have become due and payable, or will become due and payable within one year, or have been called for redemption or are to be called for redemption within one year under arrangements satisfactory to the trustee;
- we have deposited with the trustee, in trust, funds in an amount sufficient to pay and discharge each installment of principal (including mandatory sinking fund or analogous payments) of and interest on all the securities of such series on the dates such installments of principal or interest are due; and
- we have paid or caused to be paid all other sums payable under the indenture with respect to such debt securities.

Legal Defeasance. The indenture provides that, unless otherwise provided by the terms of the applicable series of debt securities, we may be discharged from any and all obligations in respect of the debt securities of any series (subject to certain exceptions). We will be so discharged upon the deposit with the trustee, in trust, of money and/or U.S. government obligations or, in the case of debt securities denominated in a single currency other than U.S. Dollars, government obligations of the government that issued or caused to be issued such currency, that, through the payment of interest and principal in accordance with their terms, will provide money in an amount sufficient in the opinion of a nationally recognized firm of independent public accountants or investment bank to pay and discharge each installment of principal of and interest on and any mandatory sinking fund payments in respect of the debt securities of that series on the stated maturity of those payments in accordance with the terms of the indenture and those debt securities.

This discharge may occur only if, among other things, we have delivered to the trustee an opinion of counsel stating that we have received from, or there has been published by, the United States Internal Revenue Service a ruling or, since the date of execution of the indenture, there has been a change in the applicable United States federal income tax law, in either case to the effect that, and based thereon such opinion shall confirm that, the holders of the debt securities of that series will not recognize income, gain or loss for United States federal income tax purposes as a result of the deposit, defeasance and discharge and will be subject to United States federal income tax on the same amount and in the same manner and at the same times as would have been the case if the deposit, defeasance and discharge had not occurred.

Defeasance of Certain Covenants. The indenture provides that, unless otherwise provided by the terms of the applicable series of debt securities, upon compliance with certain conditions:

- we may omit to comply with the covenant described above under "Description of the Debt Securities—Consolidation, Merger and Sale of Assets" and certain other covenants set forth in the indenture, as well as any additional covenants which may be set forth in the applicable prospectus supplement or information incorporated by reference; and
- any omission to comply with those covenants will not constitute a Default or an Event of Default with respect to the debt securities of that series (a "covenant defeasance").

The conditions include:

• depositing with the trustee money and/or U.S. government obligations or, in the case of debt securities denominated in a single currency other than U.S. Dollars, government obligations of the government

that issued or caused to be issued such currency, that, through the payment of interest and principal in accordance with their terms, will provide money in an amount sufficient in the opinion of a nationally recognized firm of independent public accountants or investment bank to pay and discharge each installment of principal (including any mandatory sinking fund or analogous payments) of and interest on the debt securities of that series on the stated maturity of those payments in accordance with the terms of the indenture and those debt securities; and

 delivering to the trustee an opinion of counsel to the effect that the holders of the debt securities of that series will not recognize income, gain or loss for United States federal income tax purposes as a result of the deposit and related covenant defeasance and will be subject to United States federal income tax on the same amount and in the same manner and at the same times as would have been the case if the deposit and related covenant defeasance had not occurred.

Covenant Defeasance and Events of Default. In the event we exercise our option to effect covenant defeasance with respect to any series of debt securities and the debt securities of that series are declared due and payable because of the occurrence of any Event of Default, the amount of money and/or U.S. government obligations or foreign government obligations on deposit with the trustee may not be sufficient to pay amounts due on the debt securities of that series at the time of the acceleration resulting from the Event of Default. However, we shall remain liable for those payments.

Governing Law

The indenture and the debt securities, including any claim or controversy arising out of or relating to the indenture or the securities, will be governed by the laws of the State of New York without regard to conflict of law principles that would result in the application of any law other than the laws of the State of New York.

DESCRIPTION OF WARRANTS

We may issue warrants for the purchase of shares of our Class A common stock, preferred stock, debt securities or any combination of the foregoing, either individually or as units comprised of two or more other securities. We may issue warrants independently or together with other securities, and the warrants may be attached to or separate from any offered securities. Each series of warrants will be issued under a separate warrant agreement to be entered into between us and the investors or a warrant agent. Any warrant agent will act solely as our agent in connection with the warrants of such series and will not assume any obligation or relationship of agency for or with holders or beneficial owners of warrants. We may also add, replace, or terminate warrant agents from time to time.

The following summary of material provisions of the warrants and warrant agreements is subject to, and qualified in its entirety by reference to, all the provisions of the warrant agreement and warrant certificate applicable to a particular series of warrants. When warrants are offered, a prospectus supplement, information incorporated by reference or a free writing prospectus, as applicable, will explain the terms of any warrants offered, which may differ from and will modify or replace the terms described below. We urge you to read the applicable prospectus supplement, information incorporated by reference and any related free writing prospectus, as the complete warrant agreements and warrant certificates that contain the terms of the warrants.

The particular terms of any issue of warrants will be described in the prospectus supplement, information incorporated by reference or free writing prospectus relating to the issue. Those terms may include:

- the title and number of warrants;
- the price or prices at which the warrants will be issued and may be exercised, including any provisions for the exercise of the warrants without payment of cash;
- the number of shares of Class A common stock or preferred stock purchasable upon the exercise of warrants to purchase such shares and the price at which such number of shares may be purchased upon such exercise;
- the designation, stated value, number and terms (including, without limitation, liquidation, dividend, conversion and voting rights) of the series of preferred stock purchasable upon exercise of warrants to purchase preferred stock;
- the principal amount of debt securities that may be purchased upon exercise of a debt warrant and the exercise price for the warrants;
- the number of units purchasable upon exercise of warrants to purchase units, the securities comprising such units and their terms, and the exercise price for the warrants;
- any provisions for adjustment in the number, type or amount of securities purchasable upon exercise of the warrants or the exercise price of the warrants;
- the date on which the right to exercise the warrants will commence and the date on which the right will expire;
- whether the warrants will be issued in registered or bearer form;
- whether registered warrants will be issued in the form of a certificate issued in definitive form or as one or more global securities representing the entire issuance of warrants, as described under "Forms of Securities," below;
- if applicable, the minimum or maximum amount of warrants that may be exercised at any one time;
- if applicable, the date on and after which the warrants and the related underlying securities will be separately transferable;
- United States federal income tax consequences applicable to the warrants;

- the identity of the warrant agent, if any; and
- any additional terms of the warrants, including terms, procedures and limitations relating to the exchange, exercise and settlement of the warrants.

Holders of Class A common stock or preferred stock warrants will not be entitled to:

- vote, consent or receive dividends or other distributions (including upon any liquidation, dissolution or winding up of the company);
- receive notice as stockholders with respect to any meeting of stockholders for the election of our directors or any other matter; or
- exercise any rights as stockholders.

Prior to the exercise of their warrants, holders of warrants exercisable for debt securities will not have any of the rights of holders of the debt securities purchasable upon such exercise and will therefore not be entitled to payments of principal (or premium, if any) or interest, if any, and may not enforce covenants in any applicable indenture.

Each warrant will entitle its holder to purchase the principal amount of debt securities or the number of shares of preferred stock or Class A common stock or units at the exercise price set forth in, or calculable as set forth in, the applicable prospectus supplement, information incorporated by reference or free writing prospectus. Unless we otherwise specify in the applicable prospectus supplement, information incorporated by reference or free writing prospectus supplement, information incorporated by reference or free writing prospectus supplement, information incorporated by reference or free writing prospectus supplement, information incorporated by reference or free writing prospectus supplement, information incorporated by reference or free writing prospectus. After such specified time on the expiration date, unexercised warrants will become void. Warrants may be redeemed as set forth in the applicable prospectus supplement, information incorporated by reference or free writing prospectus.

If less than all of the warrants represented by a warrant certificate are exercised, a new warrant certificate will be issued for the remaining warrants. Upon receipt of payment and the warrant certificate properly completed and duly executed at the corporate trust office of the warrant agent or any other office indicated in the applicable offering material, we will forward, as soon as practicable, the securities purchasable upon such exercise.

DESCRIPTION OF UNITS

We may issue units consisting of our Class A common stock, preferred stock, debt securities, and/or warrants to purchase any of these securities in one or more series. We may evidence each series of units by unit certificates that we will issue under a separate agreement. We will issue each unit so that the holder of the unit is also the holder of each security included in the unit. As a result, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date.

We may enter into unit agreements with a unit agent. We will indicate the name and address of the unit agent in the applicable prospectus supplement relating to a particular series of units, information incorporated by reference or a related free writing prospectus. Each unit agent will act solely as our agent in connection with the certificates relating to the units and will not assume any obligation or relationship of agency or trust with any holders of unit certificates or beneficial owners of units. We may also add, replace, or terminate unit agents from time to time.

The following description, together with the additional information included in any applicable prospectus supplement, information incorporated by reference or free writing prospectus, summarizes the general features of the units that we may offer under this prospectus. When units are offered, a prospectus supplement, information incorporated by reference or a free writing prospectus, as applicable, will explain the terms of any units offered, which may differ from and will modify or replace the terms described below. We urge you to read the applicable prospectus supplement, information incorporated by reference and any related free writing prospectus, as well as the complete unit agreements that contain the terms of the units. Specific unit agreements will contain additional important terms and provisions and we will file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference from another report that we file with the SEC, the form of each unit agreement relating to units offered under this prospectus.

The particular terms of any issue of units will be described in the prospectus supplement, information incorporated by reference or free writing prospectus relating to the issue. Those terms may include:

- the title of the series of units;
- identification and description of the separate constituent securities comprising the units;
- the price or prices at which the units will be issued;
- any provisions for the issuance, payment, settlement, transfer or exchange of the units or the securities composing the units;
- the date, if any, on and after which the constituent securities comprising the units will be separately transferable;
- whether the units will be issued in the form of a certificate issued in definitive form or as one or more global securities representing the entire issuance of units, as described under "Forms of Securities," below;
- United States federal income tax consequences applicable to the units; and
- any other terms of the units and their constituent securities.

FORMS OF SECURITIES

General

Each debt security, warrant, and unit will be represented either by a certificate issued in definitive form to a particular purchaser or by one or more global securities representing the entire issuance of securities. Unless the applicable prospectus supplement, information incorporated by reference or free writing prospectus provides otherwise, certificated securities in definitive form and global securities will be issued in registered form. Definitive securities name you or your nominee as the owner of the security, and in order to transfer or exchange these securities or to receive payments other than interest or other interim payments, you or your nominee must physically deliver the securities to the trustee, registrar, paying agent or other agent, as applicable. Global securities name a depositary or its nominee as the owner of the debt securities, warrants or units represented by these global securities. The depositary maintains a computerized system that will reflect each purchaser's beneficial ownership of the securities through an account maintained by the purchaser with its broker/dealer, bank, trust company or other representative, as we explain more fully below.

Registered Global Securities

We may issue the registered debt securities, warrants or units in the form of one or more fully registered global securities, bearing all applicable legends, to be deposited with and registered in the name of a depositary or its nominee identified in the applicable prospectus supplement, information incorporated by reference or free writing prospectus. In those cases, one or more registered global securities will be issued in a denomination or aggregate denominations equal to the portion of the aggregate principal or face amount of the securities to be represented by registered global securities. Unless and until it is exchanged in whole for certificated securities in definitive registered form, a registered global security may not be transferred except as a whole by and among the depositary for the registered global security, the nominees of the depositary or any successors of the depositary or those nominees.

If not described below, any specific terms of the depositary arrangement with respect to any securities to be represented by a registered global security will be described in the prospectus supplement, information incorporated by reference or free writing prospectus relating to those securities. We anticipate that the following provisions will apply to all depositary arrangements.

Ownership of beneficial interests in a registered global security will be limited to persons, called participants, that have accounts with the depositary or persons that may hold interests through participants. Upon the issuance of a registered global security, the depositary will credit, on its book-entry registration and transfer system, the participants' global accounts with the respective principal or face amounts of the securities beneficially owned by the participants. Any dealers, underwriters or agents participating in the distribution of the securities will designate the accounts to be credited. Ownership of beneficial interests in a registered global security will be shown on, and the transfer of ownership interests will be effected only through, records maintained by the depositary, with respect to interests of participants, and on the records of participants, with respect to interests of persons holding through participants. The laws of some jurisdictions may require that some purchasers of securities take physical delivery of these securities in definitive form. These laws may impair such purchasers' global abilities to own, transfer or pledge beneficial interests in registered global securities.

So long as the depositary, or its nominee, is the registered owner of a registered global security, that depositary or its nominee, as the case may be, will be considered the sole owner or holder of the securities represented by the registered global security for all purposes under the applicable indenture, warrant agreement or unit agreement. Except as described below, owners of beneficial interests in a registered global security will not be entitled to have the securities represented by the registered global security registered in their names, will not receive or be entitled to receive physical delivery of the securities in definitive form and will not be considered the owners or holders of the securities under the applicable indenture, warrant agreement or unit agreement. Accordingly, each person owning a beneficial interest in a registered global security must rely on the

Table of Contents

procedures of the depositary for that registered global security and, if that person is not a participant, on the procedures of the participant through which the person owns its interest, to exercise any rights of a holder under the applicable indenture, warrant agreement or unit agreement. These procedures may change from time to time. We understand that, under existing industry practices, if we request any action of holders or if an owner of a beneficial interest in a registered global security desires to give or take any action that a holder is entitled to give or take under the applicable indenture, warrant agreement or unit agreement, the depositary for the registered global security would authorize the participants holding the relevant beneficial interests to give or take that action, and the participants would authorize beneficial owners owning through them to give or take that action or would otherwise act upon the instructions of beneficial owners holding through them.

Principal, premium, if any, on and interest payments on debt securities, and any payments to holders with respect to warrants or units, represented by a registered global security registered in the name of a depositary or its nominee will be made to the depositary or its nominee, as the case may be, as the registered owner of the registered global security. None of us, the trustees, the warrant agents, the unit agents or any other agent of ours, agent of the trustees or agent of the warrant agents or the unit agents will have any responsibility or liability for any aspect of the records relating to payments made on account of beneficial ownership interests in the registered global security or for maintaining, supervising or reviewing any records relating to those beneficial ownership interests.

We expect that the depositary for any of the securities represented by a registered global security, upon receipt of any payment of principal, premium, interest or other distribution of underlying securities or other property to holders on that registered global security, will immediately credit participants' accounts in amounts proportionate to their respective beneficial interests in that registered global security as shown on the records of the depositary. We also expect that payments by participants to owners of beneficial interests in a registered global security held through participants will be governed by standing customer instructions and customary practices, as is now the case with the securities held for the accounts of customers or registered in "street name," and will be the responsibility of those participants.

If the depositary for any of the securities represented by a registered global security is at any time unwilling or unable to continue as depositary or ceases to be qualified to serve as a depositary, and a qualified successor depositary is not appointed by us within 90 days, we will issue certificated securities in definitive form in exchange for the registered global security that had been held by the depositary. Any securities issued in definitive form in exchange for a registered global security will be registered in the name or names that the depositary gives to the relevant trustee, warrant agent or unit agent or other relevant agent of ours or theirs. It is expected that the depositary's instructions will be based upon directions received by the depositary from participants with respect to ownership of beneficial interests in the registered global security that had been held by the depositary.

PLAN OF DISTRIBUTION

We may sell the securities offered through this prospectus to or through underwriters or dealers, directly to purchasers, through agents or through a combination of any these methods. We may distribute the securities in one or more transactions, include block transactions, at a fixed price or prices, which may be changed, market prices prevailing at the time of sale, prices related to the prevailing market prices, negotiated prices or prices determined by competitive bids. The prospectus supplement, information incorporated by reference or a related free writing prospectus will include the following information, to the extent applicable:

- the terms of the offering, including any option to purchase additional securities;
- the names of any managing underwriter, underwriters or agents;
- the purchase price of the securities;
- the net proceeds from the sale of the securities;
- any delayed delivery arrangements;
- any underwriting discounts, commissions or agency fees and other items constituting underwriters' or agents' compensation;
- any public offering price;
- any discounts or concessions allowed or reallowed or paid to dealers;
- any commissions paid to agents; and
- any exchange on which the securities will be listed.

We may engage in at-the-market offerings into an existing trading market in accordance with Rule 415(a)(4). Any at-the-market offering will be through an underwriter or underwriters acting as principal or agent for us. We may engage in block transactions on any stock exchange or other market where the securities may be traded.

We may issue to our stockholders, on a pro rata basis for no consideration, subscription rights to purchase our securities. These subscription rights may or may not be transferable by stockholders. The applicable prospectus supplement, information incorporated by reference or free writing prospectus will describe the specific terms of any offering of our securities through the issuance of subscription rights, including the terms of the subscription rights offering, the terms, procedures and limitations relating to the exchange and exercise of the subscription rights and, if applicable, the material terms of any standby underwriting or purchase arrangement entered into by us in connection with the offering of securities through the issuance of subscription rights.

Sale Through Underwriters or Dealers

If underwriters are used in the sale, the underwriters will acquire the securities for their own account, including through underwriting, purchase, security lending or repurchase agreements with us. The underwriters may resell the securities from time to time in one or more transactions, including negotiated transactions. Underwriters may sell the securities in order to facilitate transactions in any of our other securities (described in this prospectus or otherwise), including other public or private transactions and short sales. Underwriters may offer securities to the public either through underwriting syndicates represented by one or more managing underwriters or directly by one or more firms acting as underwriters. Unless otherwise indicated in the applicable prospectus supplement, information incorporated by reference or free writing prospectus, the obligations of the underwriters to purchase the securities will be subject to certain conditions, and the underwriters will be obligated to purchase all the offered securities if they purchase any of them. The underwriters may change from time to time any initial public offering price and any discounts or concessions allowed or reallowed or paid to dealers. Underwriters may be deemed to have received compensation from us in the form of underwriting discounts or commissions and may also receive commissions from purchasers for whom they may act as agent.

Table of Contents

Underwriters may sell our securities to or through dealers. These dealers may receive compensation in the form of discounts, commissions or concessions from the underwriters and/or commissions from the purchasers for whom they may act as agent. Any offering price and any discounts or concessions allowed or reallowed or paid to dealers may be changed from time to time.

If dealers are used in the sale of securities offered through this prospectus, we may sell the securities to them as principals. They may then resell those securities to the public at varying prices determined by the dealers at the time of resale. Dealers engaged by us may allow other dealers to participate in resales. The applicable prospectus supplement, information incorporated by reference or free writing prospectus will include the names of the dealers and the terms of the transaction.

In connection with offerings made through underwriters or agents, we may enter into agreements with such underwriters or agents pursuant to which we receive our outstanding securities in consideration for the securities being offered to the public for cash. In connection with these arrangements, the underwriters or agents may also sell securities covered by this prospectus to hedge their positions in these outstanding securities, including in short sale transactions. If so, the underwriters or agents may use the securities received from us under these arrangements to close out any related open borrowings of securities.

Underwriters, dealers and agents that participate in the distribution of our securities may be deemed to be underwriters as defined in the Securities Act, and any discounts or commissions they receive from us, as well as any profit on their resale of our securities, may be treated as underwriting compensation under the Securities Act.

Under the securities laws of some states, the securities offered by this prospectus may be sold in those states only through registered or licensed brokers or dealers.

Direct Sales and Sales Through Agents

We may sell the securities offered through this prospectus directly. In this case, no underwriters or agents would be involved. Such securities may also be sold through agents designated from time to time. The applicable prospectus supplement, information incorporated by reference or free writing prospectus will name any agent involved in the offer or sale of the offered securities and will describe any commissions payable to the agent. Unless otherwise indicated in the applicable prospectus supplement, information incorporated by reference or free writing prospectus, any agent will agree to use its reasonable best efforts to solicit purchases for the period of its appointment.

We may sell the securities directly to institutional investors or others who may be deemed to be underwriters within the meaning of the Securities Act with respect to any sale of those securities. The terms of any such sales will be described in the prospectus supplement, information incorporated by reference or free writing prospectus.

Delayed Delivery Contracts

If the prospectus supplement, information incorporated by reference or free writing prospectus indicates, we may authorize agents, underwriters or dealers to solicit offers from certain types of institutions to purchase securities at the public offering price under delayed delivery contracts. These contracts would provide for payment and delivery on a specified date in the future. The contracts would be subject only to those conditions described in the prospectus supplement, information incorporated by reference or free writing prospectus. The applicable prospectus supplement, information incorporated by reference the commission payable for solicitation of those contracts.

Market Making, Stabilization and Other Transactions

Unless the applicable prospectus supplement, information incorporated by reference or free writing prospectus states otherwise, each series of offered securities, other than Class A common stock, will be a new



issue and will have no established trading market. We may elect to list any series of offered securities on an exchange. Any underwriters that we use in the sale of offered securities may make a market in such securities, but may discontinue such market making at any time without notice. Therefore, we cannot assure you that the securities will have a liquid trading market.

In connection with an offering, an underwriter may purchase and sell securities in the open market. These transactions may include short sales, stabilizing transactions and purchases to cover positions created by short sales. Short sales involve the sale by the underwriters of a greater number of securities than they are required to purchase in the offering. "Covered" short sales are sales made in an amount not greater than the underwriters' option to purchase additional securities from us, if any, in the offering. If the underwriters have an option to purchase additional securities from us, the underwriters the varies of securities to close out any covered short position by either exercising their option to purchase additional securities or purchasing securities to close out the covered short position, the underwriters may consider, among other things, the price of securities available for purchase in the open market as compared to the price at which they may purchase securities through the option to purchase additional securities. "Naked" short sales are any sales in excess of such option or where the underwriters do not have an option to purchase additional securities. The underwriters must close out any naked short position by purchasing securities in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the securities in the open market after pricing that could adversely affect investors who purchase in the offering.

Accordingly, to cover these short sales positions or to otherwise stabilize or maintain the price of the securities, the underwriters may bid for or purchase securities in the open market and may impose penalty bids. If penalty bids are imposed, selling concessions allowed to syndicate members or other broker-dealers participating in the offering are reclaimed if securities previously distributed in the offering are repurchased, whether in connection with stabilization transactions or otherwise. The effect of these transactions may be to stabilize or maintain the market price of the securities at a level above that which might otherwise prevail in the open market. The impositions of a penalty bid may also affect the price of the securities to the extent that it discourages resale of the securities. The magnitude or effect of any stabilization or other transactions is uncertain. These transactions may be effected on the Nasdaq Capital Market or otherwise and, if commenced, may be discontinued at any time.

Derivative Transactions and Hedging

We, the underwriters or other agents may engage in derivative transactions involving the securities. These derivatives may consist of short sale transactions and other hedging activities. The underwriters or agents may acquire a long or short position in the securities, hold or resell securities acquired and purchase options or futures on the securities and other derivative instruments with returns linked to or related to changes in the price of the securities. In order to facilitate these derivative transactions, we may enter into security lending or repurchase agreements with the underwriters or agents. The underwriters or agents may effect the derivative transactions through sales of the securities to the public, including short sales, or by lending the securities in order to facilitate short sale transactions by others. The underwriters or agents may also use the securities purchased or borrowed from us or others (or, in the case of derivatives, securities received from us in settlement of those derivatives) to directly or indirectly settle sales of the securities or close out any related open borrowings of the securities.

Passive Market Making

Any underwriters who are qualified market makers on the Nasdaq Capital Market may engage in passive market-making transactions in our securities on the Nasdaq Capital Market in accordance with Rule 103 of Regulation M before the commencement of offers or sales of the securities. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such

Table of Contents

security; if all independent bids are lowered below the passive market maker's bid, however, the passive market maker's bid must then be lowered when certain purchase limits are exceeded. Passive market making may stabilize the market price of the securities at a level above that which might otherwise prevail in the open market and, if commenced, may be discontinued at any time.

Electronic Auctions

We may also make sales through the Internet or through other electronic means. Since we may from time to time elect to offer securities directly to the public, with or without the involvement of agents, underwriters or dealers, utilizing the Internet or other forms of electronic bidding or ordering systems for the pricing and allocation of such securities, you will want to pay particular attention to the description of that system we will provide in a prospectus supplement, information incorporated by reference or free writing prospectus.

Such electronic system may allow bidders to directly participate, through electronic access to an auction site, by submitting conditional offers to buy that are subject to acceptance by us, and which may directly affect the price or other terms and conditions at which such securities are sold. These bidding or ordering systems may present to each bidder, on a so-called "real-time" basis, relevant information to assist in making a bid, such as the clearing spread at which the offering would be sold, based on the bids submitted, and whether a bidder's individual bids would be accepted, prorated or rejected. For example, in the case of debt security, the clearing spread could be indicated as a number of "basis points" above an index treasury note. Of course, many pricing methods can and may also be used.

Upon completion of such an electronic auction process, securities will be allocated based on prices bid, terms of bid or other factors. The final offering price at which securities would be sold and the allocation of securities among bidders would be based in whole or in part on the results of the Internet or other electronic bidding process or auction.

General Information

We may agree to indemnify underwriters, dealers and agents against civil liabilities arising out of this prospectus and any applicable prospectus supplement, information incorporated by reference or free writing prospectus, including liabilities under the Securities Act, and to contribute to payments which the underwriters, dealers and agents may be required to make relating to those liabilities.

Our underwriters, dealers and agents, or their affiliates, may be customers of, engage in transactions with or perform services for us, in the ordinary course of business.

LEGAL MATTERS

The legality of the securities offered hereby will be passed upon for us by Foley Hoag LLP of Boston, Massachusetts.

EXPERTS

The consolidated financial statements of Organogenesis Holdings Inc. as of December 31, 2018 and 2017 and for each of the years in the threeyear period ended December 31, 2018 incorporated in this Prospectus by reference from the Organogenesis Holdings Inc. Annual Report on Form 10-K for the year ended December 31, 2018 have been audited by RSM US LLP, an independent registered public accounting firm, as stated in their report thereon, incorporated herein by reference, and have been incorporated in this Prospectus and Registration Statement in reliance upon such report and upon the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any document we file at the SEC's Public Reference Room located at One Station Place, 100 F Street, N.E., Washington, D.C. 20549. You can also request copies of the documents, upon payment of a duplicating fee, by writing the Public Reference Section of the SEC. Please call the SEC at 1-800-SEC-0330 for further information on the Public Reference Room. These filings are also available to the public from the SEC's website at *www.sec.gov*.

INFORMATION INCORPORATED BY REFERENCE

The SEC allows us to "incorporate by reference" information into this prospectus. This means that we can disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is considered to be a part of this prospectus, except for any information that is superseded by information that is included directly in this prospectus or incorporated by reference subsequent to the date of this prospectus. We do not incorporate the contents of our website into this prospectus. This prospectus incorporates by reference the documents listed below that we have previously filed with the SEC. They contain important information about us and our financial condition. The following documents are incorporated by reference into this prospectus:

- our annual report on <u>Form 10-K</u> for the fiscal year ended December 31, 2018, filed with the SEC on March 18, 2019, as amended by the amendment to our annual report on <u>Form 10-K/A</u>, filed on April 30, 2019;
- our quarterly report on <u>Form 10-Q</u> for the quarter ended March 31, 2019, filed with the SEC on May 10, 2019;
- our quarterly report on Form 10-Q for the quarter ended June 30, 2019, filed with the SEC on August 9, 2019;
- our current reports on Form 8-K, which were filed with the SEC on January 7, 2019 (Film No. 19512275), January 7, 2019 (Film No. 19513981), January 31, 2019, March 12, 2019, March 14, 2019, March 19, 2019, March 20, 2019, April 1, 2019, July 16, 2019, August 8, 2019, August 19, 2019 and August 21, 2019;
- the description of our capital stock contained in our joint proxy statement/prospectus dated <u>November 30, 2018</u>, which was filed on November 30, 2018 and is part of the Registration Statement on Form S-4 originally filed with the SEC on <u>August 29, 2018</u> (Registration No. 333-2227090), including any amendments or supplements thereto; and
- the description of our Class A common stock contained in our Registration Statement on <u>Form 8-A</u>, as filed with the SEC on October 5, 2016, including any amendment or report filed for the purpose of updating such description.

In addition, we incorporate by reference all documents that we may file with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act on or after the date of effectiveness of the registration statement until the date on which this registration statement has been withdrawn. These documents will become a part of this prospectus from the date that the documents are filed with the SEC. These documents include periodic reports, such as annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K, excluding any information filed or furnished pursuant to Item 2.02 or Item 7.01, unless such Form 8-K expressly provides to the contrary.

Upon oral or written request and at no cost to the requester, we will provide to each person, including any beneficial owner, to whom a prospectus is delivered, a copy of any or all of the information that has been incorporated by reference in this prospectus but not delivered with this prospectus. You may obtain copies of these documents, at no cost to you, from our website (www.organogenesis.com), or by writing or telephoning us at the following address: Organogenesis Holdings Inc., 85 Dan Road, Canton, MA 02021, (781) 575-0775.



Class A Common Stock

PROSPECTUS SUPPLEMENT

Credit Suisse SVB Leerink BTIG Oppenheimer & Co.

November , 2019