

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

**FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

Bioventus Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

3841
(Primary Standard Industrial
Classification Code Number)

81-0980861
(I.R.S. Employer
Identification No.)

4721 Emperor Boulevard, Suite 100
Durham, North Carolina 27703
(919) 474-6700

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

Anthony P. Bihl III
Chief Executive Officer
Bioventus Inc.
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(919) 474-6700

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

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

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

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

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

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

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

Large accelerated filer ☐ Accelerated filer ☐

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

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	Proposed maximum aggregate offering price(1)	Amount of registration fee(2)
Class A Common Stock, \$0.001 par value per share	\$	\$

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

(2) Calculated pursuant to Rule 457(o) based on an estimate of the proposed maximum aggregate offering price.

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

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

Subject to completion, dated April 19, 2016

Preliminary prospectus



Class A common stock

This is the initial public offering of shares of Class A common stock of Bioventus Inc. We are selling _____ shares of our Class A common stock.

Prior to this offering, there has been no public market for our Class A common stock. The estimated initial public offering price is between \$ _____ and \$ _____ per share. We expect to list our Class A common stock on The NASDAQ Global Market, or NASDAQ, under the symbol "BIOV".

We will use the net proceeds that we receive from this offering to purchase from Bioventus LLC, newly-issued common membership interests of Bioventus LLC, which we refer to as the "LLC Interests." There is no public market for the LLC Interests. The purchase price for the newly-issued LLC Interests will be equal to the public offering price of our Class A common stock, less the underwriting discounts and commissions referred to below. We intend to cause Bioventus LLC to use the net proceeds it receives from us in connection with this offering as described in "Use of proceeds." Simultaneous with this offering, certain of the indirect owners of membership interests in Bioventus LLC, whom we refer to as "Former LLC Owners," will exchange their indirect ownership interests for shares of Class A common stock and certain other holders of membership interests in Bioventus LLC, whom we refer to as "Continuing LLC Owners," will retain their membership interests in Bioventus LLC.

We will have two classes of common stock outstanding after this offering: Class A common stock and Class B common stock. Each share of Class A common stock and Class B common stock entitles its holder to one vote on all matters presented to our stockholders generally. All of our Class B common stock will be held by the Continuing LLC Owners, on a one-to-one basis with the number of LLC Interests they own. Immediately following this offering, the holders of our Class A common stock issued in this offering collectively will hold _____ % of the economic interests in us and _____ % of the voting power in us, the Former LLC Owners, through their ownership of Class A common stock, collectively will hold _____ % of the economic interests in us and _____ % of the voting power in us, and the Continuing LLC Owners, through their ownership of all of the outstanding Class B common stock, collectively will hold no economic interest in us and the remaining _____ % of the voting power in us. We will be a holding company, and upon consummation of this offering and the application of proceeds therefrom, our principal asset will be the LLC Interests we purchase from Bioventus LLC and acquire from the Former LLC Owners, representing an aggregate _____ % economic interest in Bioventus LLC. The remaining _____ % economic interest in Bioventus LLC will be owned by the Continuing LLC Owners through their ownership of LLC Interests.

We will be the sole managing member of Bioventus LLC. We will operate and control all of the business and affairs of Bioventus LLC and, through Bioventus LLC and its subsidiaries, conduct our business.

Following this offering, we will be a "controlled company" within the meaning of the corporate governance rules for NASDAQ-listed companies. See "Transactions" and "Management—Corporate governance."

We are an "emerging growth company" as defined under the federal securities laws and, as such, may elect to comply with certain reduced public company reporting requirements for future filings. See "Prospectus summary—Implications of being an emerging growth company."

	Per share	Total
Initial public offering price	\$ _____	\$ _____
Underwriting discounts and commissions (1)	\$ _____	\$ _____
Proceeds to us, before expenses	\$ _____	\$ _____

(1) See "Underwriting" for additional information regarding underwriting compensation.

We have granted the underwriters an over-allotment option for a period of 30 days to purchase up to _____ additional shares of Class A common stock.

Investing in shares of our Class A common stock involves risks. See "[Risk factors](#)" beginning on page 18.

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 underwriters expect to deliver the shares against payment in New York, New York on _____, 2016.

J.P. Morgan
Stifel

Piper Jaffray
Leerink Partners

The date of this prospectus is _____, 2016.

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We have not, and the underwriters have not, authorized anyone to provide any information or to make any representations other than those contained in this prospectus or in any free writing prospectus prepared by or on behalf of us or to which we have referred you. 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 is an offer to sell only the shares of Class A common stock offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus or in any applicable free writing prospectus is current only as of its date, regardless of its time of delivery or any sale of shares of our Class A common stock. Our business, financial condition, results of operations and prospects may have changed since that date.

For investors outside the United States: Neither we nor any of the underwriters have taken any action that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons who have come into possession of this prospectus in a jurisdiction outside the United States are required to inform themselves about and to observe any restrictions relating to this offering and the distribution of this prospectus.

Basis of presentation

In connection with the closing of this offering, we will effect certain organizational transactions. Unless otherwise stated or the context otherwise requires, all information in this prospectus reflects the consummation of the organizational transactions and this offering, which we refer to collectively as the “Transactions.” See “Transactions” for additional information regarding the Transactions.

As used in this prospectus, unless the context otherwise requires, references to:

- “we,” “us,” “our,” the “Company,” “Bioventus,” “Bioventus Inc.” and similar references refer: (i) following the consummation of the Transactions, including this offering, to Bioventus Inc., and, unless otherwise stated, all of its subsidiaries, including Bioventus LLC, which we refer to as “Bioventus LLC,” and, unless otherwise stated, all of its subsidiaries, and (ii) on or prior to the completion of the Transactions, including this offering, to Bioventus LLC and, unless otherwise stated, all of its subsidiaries.
- “*Acquisition*” refers to our acquisition of BioStructures, LLC, or BioStructures, on November 24, 2015.
- “*Continuing LLC Owners*” refers to our chief executive officer and Smith & Nephew, Inc., each of whom will continue to own LLC Interests (as defined below) after the Transactions and who may, following the consummation of this offering, exchange their LLC Interests for shares of our Class A common stock (upon redemption or cancellation of the same number of their shares of our Class B common stock) or a cash payment (if mutually agreed) as described in “Certain relationships and related party transactions—Bioventus LLC Agreement.”
- “*Essex Woodlands Health Ventures*” refers to Essex Woodlands Health Ventures Fund VIII, L.P., Essex Woodlands Health Ventures Fund VIII-A, L.P. and Essex Woodlands Health Ventures Fund VIII-B, L.P.
- “*Former LLC Owners*” refers to all of the Original LLC Owners (including Essex Woodlands Health Ventures, but excluding Smith & Nephew, Inc. and our chief executive officer) who will exchange their indirect ownership interests in Bioventus LLC for shares of our Class A common stock in connection with the consummation of this offering.
- “*LLC Interests*” refer to the single class of newly-issued common membership interests of Bioventus LLC.
- “*Original LLC Owners*” refer to the direct and certain indirect owners of Bioventus LLC, collectively, prior to the Transactions, including, the members of the Voting Group (as defined below).
- “*Phantom Plan Participants*” refer to certain individuals who hold existing awards under the Phantom Profits Interest Plan, which we refer to as the “Phantom Plan,” and will, in connection with this offering, receive rights to receive shares of Class A common stock upon settlement of their awards as described in “Executive compensation—Narrative to summary compensation table—Equity-based compensation—Phantom profits interest units.”
- “*Voting Group*” refers collectively to (i) Essex Woodlands Health Ventures, (ii) Smith & Nephew, Inc., a U.S. based subsidiary of Smith & Nephew plc, or Smith & Nephew or S&N, (iii) certain other Original LLC Owners and (iv) our chief executive officer, all of whom will be parties to the Stockholders Agreement as described in “Description of capital stock—Stockholders Agreement.” The Voting Group will hold Class A common stock and Class B common stock representing in the aggregate a majority of the combined voting power of our common stock.

We will be a holding company and the sole managing member of Bioventus LLC, and upon completion of this offering and the application of proceeds therefrom, our principal asset will be LLC Interests of Bioventus LLC.

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Bioventus LLC is the predecessor of the issuer, Bioventus Inc., for financial reporting purposes. Bioventus Inc. will be the audited financial reporting entity following this offering. Accordingly, this prospectus contains the following historical financial statements:

- *Bioventus Inc.* The historical financial information of Bioventus Inc. has not been included in this prospectus as it is a newly incorporated entity, has no business transactions or activities to date and had no assets or liabilities during the periods presented in this prospectus.
- *Bioventus LLC.* As we will have no other interest in any operations other than those of Bioventus LLC and its subsidiaries, the historical consolidated financial information included in this prospectus is that of Bioventus LLC and its subsidiaries.

The unaudited pro forma financial information of Bioventus Inc. presented in this prospectus has been derived by the application of pro forma adjustments to the historical consolidated financial statements of Bioventus LLC and its subsidiaries included elsewhere in this prospectus. These pro forma adjustments give effect to the Acquisition and the Transactions as described in “Transactions,” including the completion of this offering, as if all such transactions had occurred on January 1, 2015, in the case of the unaudited pro forma consolidated statement of operations data, and as of December 31, 2015, in the case of the unaudited pro forma consolidated balance sheet data. See “Unaudited pro forma consolidated financial information” for a complete description of the adjustments and assumptions underlying the pro forma financial information included in this prospectus.

Numerical figures included in this prospectus have been subject to rounding adjustments. Accordingly, numerical figures shown as totals in various tables may not be arithmetic aggregations of the figures that precede them.

Trademarks, trade names and service marks

This prospectus includes our trademarks and trade names, such as Bioventus, Durolane, Exogen, Exponent, OsteoAMP, OsteoPlus, PureBone, Signafuse and our logo. This prospectus also includes trademarks, trade names and service marks that are the property of other organizations. Solely for convenience, trademarks and trade names referred to in this prospectus appear without any “™” or “®” symbol, but those references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights to these trademarks, trade names and service marks. We do not intend our use or display of other parties’ trademarks, trade names or service marks to imply, and such use or display should not be construed to imply, a relationship with, or endorsement or sponsorship of us by, these other parties.

Market and industry data

Unless otherwise indicated, information contained in this prospectus concerning our industry and the markets in which we operate is based on information from iData Research, Inc., or iData. Other information concerning our industry and the markets in which we operate is based on independent industry and research organizations, other third-party sources (including industry publications, surveys and forecasts), and management estimates. Management estimates are derived from publicly available information released by independent industry analysts and third-party sources, as well as data from our internal research, and are based on assumptions made by us upon reviewing such data and our knowledge of such industry and markets which we believe to be reasonable. In addition, projections, assumptions and estimates of the future performance of the industry in which we operate and our future performance are necessarily subject to uncertainty and risk due to a variety of factors, including those described in “Risk factors” and “Special note regarding forward-looking statements.” These and other factors could cause results to differ materially from those expressed in the estimates made by the independent parties and by us.

Prospectus summary

The following summary highlights information contained elsewhere in this prospectus. This summary is not complete and may not contain all the information you should consider before investing in our Class A common stock. You should read this entire prospectus carefully, including the risks of investing in our Class A common stock discussed under the heading “Risk factors,” and the financial statements and related notes included elsewhere in this prospectus before making an investment decision.

Overview

We are a global medical technology company focused on developing and commercializing innovative and proprietary orthobiologic products for the treatment of patients suffering from a broad array of musculoskeletal conditions. Our products address the growing need for clinically effective, cost efficient and minimally invasive solutions that enhance the body’s natural healing processes. For the year ended December 31, 2015, we generated \$253.7 million of net sales. We operate our business through four reportable segments: Active Healing Therapies—U.S., Active Healing Therapies—International, Surgical and BMP.

- **Active Healing Therapies—U.S. and International.** Our Active Healing Therapies segments offer two types of non-surgical products: our market-leading, non-invasive Exogen system for long bone stimulation for fracture healing and hyaluronic acid, or HA, viscosupplementation therapies for osteoarthritis pain relief. Our Exogen system is a premarket approved, or PMA, product that offers significant advantages over competitors’ long bone stimulation systems, including ease of use, superior clinical efficacy and a broader label that is the only label for a long bone growth stimulator for certain fresh fractures. Our two PMA approved HA viscosupplementation therapies are: Supartz FX, a five injection therapy, which we market in the United States, and GelSyn-3, a three injection therapy, which we expect to launch in the United States in the second half of 2016. We also market Durolane, a single injection therapy, outside the United States and own certain related assets.
- **Surgical.** Our Surgical segment offers a broad portfolio of advanced bone graft substitutes in the United States that are designed to improve bone fusion rates following spinal fusion and other orthopedic surgeries. These products include our OsteoAMP allogeneic growth factor, a range of bioactive synthetics, a collagen ceramic matrix, a demineralized bone matrix, or DBM, and allograft comprising demineralized cancellous bone in different preparations. Our development pipeline includes additional bone graft substitutes.
- **BMP.** Our BMP segment is comprised of proprietary next-generation bone morphogenetic protein, or BMP. Our next-generation BMP product candidates are designed to offer at least equivalent efficacy at a lower dose administration and provide a better-controlled release to address the safety concerns associated with Infuse Bone Graft, or Infuse, the current market-leading bone graft.

We were founded in May 2012, when a group led by Essex Woodlands Health Ventures Inc. acquired a majority stake in the biologics business of Smith & Nephew plc, which included Exogen, exclusive U.S. distribution rights to Supartz and exclusive distribution rights to Durolane outside the United States. Our investors believed that the biologics business would provide a platform from which to build a global leader in the rapidly evolving orthobiologics market. Since our founding, we have assembled an experienced senior executive team to execute this vision. This team has successfully accomplished the following:

- *Established our Surgical business through the acquisition and integration of the OsteoAMP product line in 2014 and the BioStructures business in 2015.*

- Accelerated the research and development of our next-generation BMP product candidates by obtaining an exclusive worldwide license to an intellectual property portfolio.
- Enhanced our Active Healing Therapies business by securing distribution rights to commercialize a broader set of HA viscosupplementation therapies.

We currently market and sell our products in the United States and 29 other countries. As of December 31, 2015, our sales organization consisted of approximately 234 direct sales representatives and 135 independent distributors in the United States and approximately 70 direct sales representatives and ten independent distributors internationally. In the United States, our Active Healing Therapies sales organization markets our products to orthopedists, musculoskeletal and sports medicine physicians and podiatrists. Our Surgical sales organization is composed of a sales management team that markets our surgical products primarily to neurosurgeons and orthopedic spine surgeons. In international markets, we market and sell our Active Healing Therapies through direct sales representatives in twelve countries and through independent distributors in an additional 17 countries. We have grown our total net sales from \$232.4 million for the year ended December 31, 2013 to \$242.9 million for the year ended December 31, 2014 and to \$253.7 million for the year ended December 31, 2015, at a compound annual growth rate, or CAGR, of 4.5%. We have grown our Adjusted EBITDA from \$33.1 million for the year ended December 31, 2013 to \$42.9 million for the year ended December 31, 2014 and to \$53.5 million for the year ended December 31, 2015, at a CAGR of 27.0%. For a reconciliation of net loss to Adjusted EBITDA, see Note 3 to the information contained in “—Summary historical and pro forma financial information.”

Industry background

Market opportunity

Orthobiologics are used to accelerate the healing of, or reduce pain experienced in, bones, joints or damaged musculoskeletal tissue by harnessing the body's natural healing processes. We believe the current U.S. annual total market opportunity for orthobiologic products is approximately \$3.0 billion and will grow at approximately 4–5% annually for the next five to seven years. There is additional opportunity outside the United States, particularly in HA viscosupplementation. These estimates for the U.S. market include non-surgical products, such as long bone growth stimulation and HA viscosupplementation therapies; surgical bone graft substitutes such as allografts, DBMs, synthetics, stem cells, BMPs/growth factors; spinal stimulation; cell therapies and orthopedic cartilage repair products. Market growth is being driven by improving technologies and unaddressed market needs, an aging population, increased incidence of spinal disorders driving the need for spinal fusion surgery and increased incidence of osteoarthritis leading to the need for HA viscosupplementation therapy or surgery.

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The chart below summarizes the U.S. orthobiologics market, key product categories and our products in each of those categories:

	U.S current market size (in millions)	2014– 2021 Market CAGR	Primary applications	Bioventus product offerings (1)
Non-surgical				
Long bone stimulation	\$ 300	1.9%	• Fracture repair	• Exogen
HA viscosupplementation	\$ 873	6.1%	• Alleviation of osteoarthritis pain through single, three or five injection viscosupplementation regimens	• Supartz FX, Durolane+, GelSyn-3*
Subtotal	\$ 1,123			
Surgical—Bone graft substitutes				
Allografts	\$ 132	(0.9)%	• Spinal fusion, trauma and other bone repair applications	• Purebone
DBMs	\$ 365	2.3%	• Spinal fusion, trauma and other bone repair applications	• Exponent
Synthetics	\$ 361	5.7%	• Spinal fusion, trauma and other bone repair applications	• Signafuse, Interface, Osteoplus
Stem cells	\$ 178	16.9%	• Spinal fusion, trauma and other bone repair applications	• No offerings
BMPs/growth factors	\$ 372	0.6%	• Spinal fusion, trauma and other bone repair applications	• OsteoAMP
Subtotal	\$ 1,407	5.2%		
Other markets				
Spinal stimulation	\$ 250	N/A	• Spinal fusion	• No offerings
Cell therapy	\$ 143	4.0%	• Injectable platelet-rich plasma used for soft tissue repair	• No offerings
Orthopedic cartilage repair	\$ 92	3.8%	• Autograft-, allograft- and microfracture-based cartilage repair	• No offerings
Subtotal	\$ 485			
Total	\$ 3,015			

Source: iData 2015 U.S. Market for Orthopedic Biomaterials, except spinal stimulation data.

(1) See "Business" for additional information regarding our products.

+ We do not market this product in the United States.

* We expect to launch GelSyn-3 in the United States in the second half of 2016.

We believe the orthobiologics market is characterized by a set of specific product development, regulatory, sales and marketing and purchasing dynamics that include the following:

- *Lack of focus resulting in inadequate allocation of resources by existing orthobiologics competitors;*
- *Increasing regulatory complexity and scrutiny;*
- *Historical lack of investment in clinical data and clinical education; and*
- *Hospitals increasingly favoring end-to-end orthobiologics providers.*

As a result of these factors, we believe there is an opportunity for a company to achieve leadership in the global orthobiologics market by focusing on developing and commercializing a broad portfolio of clinically validated, cost-effective products for use both in and out of the surgical suite. Additionally, we believe there is room to grow the worldwide orthobiologics market opportunity beyond its current size, by developing therapies that are superior to, or have a broader label than, existing bone graft substitutes or HA viscosupplementation therapies.

Our competitive strengths

We believe we have the following competitive strengths:

- *Sufficient scale combined with an exclusive focus on orthobiologics.* We believe we are the only company exclusively focused on the orthobiologics market with annual net sales over \$100 million. We believe we have sufficient scale and resources to be competitive and relevant in the marketplace, but are small enough to respond quickly to internal and external opportunities.
- *Leadership and strong competitive positions in Active Healing Therapies.* Our Active Healing Therapies segments generated all of their \$227.9 million in net sales in 2015 from PMA approved products, including our market-leading Exogen system and the HA viscosupplementation therapies that we own or distribute. We believe our direct salesforce of over 300 representatives is among the largest sales forces in our industry.
- *Broad portfolio of advanced orthobiologics that address a variety of surgeon needs.* We offer a broad portfolio of advanced orthobiologics products that enables us to fulfill a greater portion of the orthobiologics needs of neurosurgeons and orthopedic spine surgeons than many of our competitors. We believe our current product portfolio, combined with our pipeline that includes next-generation and additional indications and formulations of our products, positions us to be a portfolio provider of surgical orthobiologic solutions.
- *Next-generation BMP product candidates in development.* Infuse revolutionized certain types of spinal fusion by enabling faster recovery time and improved bone healing, but safety concerns have limited its ability to be used across a broader range of procedures. In more than 80 non-human primate studies, our next-generation BMP product candidates have demonstrated at least equivalent efficacy to Infuse at one-tenth the dosage.
- *Seasoned management focused on profitable growth.* Our senior leadership team has been involved in growing large businesses or business lines, major acquisitions and integrations, public company sale transactions, as well as the development, approval and launch of transformative medical devices and orthobiologics. We have grown net sales from \$232.4 million as of December 31, 2013 to \$253.7 million as of December 31, 2015 and made significant investments in our product pipeline, while growing Adjusted EBITDA.

Our strategy

- *Grow our Surgical business by investing in our portfolio and expanding our distribution network.* Through the acquisition of BioStructures, we expanded our existing distribution network and broadened our product portfolio. We intend to sell both OsteoAMP and BioStructures products through this expanded distribution network of approximately 135 independent distributors. Additionally, we are continuing to invest in product development and clinical studies. Over the long term, we believe we can be a portfolio provider of orthobiologics to hospitals by offering bone graft substitutes backed by clinical and economic data.
- *Advance our next-generation BMP product candidates.* We are investing significant resources into our next-generation BMP product candidates. We intend to enter clinical trials for transforaminal lumbar interbody fusion, or TLIF, posterior lumbar interbody fusion, or PLIF, and open tibial fractures, which we believe represent an approximately \$240 million market for BMP-2 products in the United States in the aggregate. We intend to enter a Phase 1 clinical trial within 18 months and expect to demonstrate advancement of our product candidates through a number of milestones over the next two years. Upon the first commercial sale of a product candidate, Pfizer Inc., or Pfizer, will assign us certain intellectual property rights covered by our license agreement.
- *Grow our Active Healing Therapies business through new product introductions and selling strategies.* We intend to grow our HA viscosupplementation therapies business by commercializing GelSyn-3, a three injection therapy, to which we recently obtained the U.S. distribution rights from Institut Biochimique SA, or IBSA. We believe this will enable us to contract with a broader set of payors. In addition, we intend to continue to grow sales of our Exogen system by introducing new technology-based decision-making tools that assist physicians in deciding when to prescribe long bone growth stimulators, as well as highlighting our Exogen system's ease of use, clinical advantages and its broader label which is the only label for a long bone growth stimulator that includes certain fresh fractures.
- *Selectively pursue business development opportunities.* We have completed five acquisitions, licensing and distribution agreements since our founding in 2012. We intend to continue to selectively pursue business development opportunities that add to our Surgical business as well as broaden our Active Healing Therapies business. We will continue to be disciplined when evaluating opportunities and look for products that have clinical differentiation and cost-effectiveness.
- *Focus on continued Adjusted EBITDA growth.* We have increased our Adjusted EBITDA, while making significant investments in our development pipeline. Additionally, we are focused on continuing to increase our Adjusted EBITDA over time by leveraging the investments we have made to date, as well as maintaining our cost focus.

Summary of risks associated with our business

We are subject to a number of risks, including risks that may prevent us from achieving our business objectives or that may adversely affect our business, financial condition, results of operations and cash flows. You should carefully consider the risks discussed in the section entitled "Risk factors," including the following risks, before investing in our Class A common stock:

- we are highly dependent on a limited number of products;
- we compete and may compete in the future against other companies, some of which have longer operating histories, more established products or greater resources than we do, which may prevent us from achieving increased market penetration or improved operating results;

- clinical trials of our next-generation BMP product candidates may fail to satisfactorily demonstrate safety and efficacy or we may be unable to obtain regulatory approval for, or successfully commercialize our next-generation BMP product candidates;
- our long-term growth depends on our ability to develop, acquire and commercialize additional orthobiologic products;
- we have incurred significant net losses since inception, and we may not be able to achieve or sustain profitability; and
- we have identified material weaknesses in our internal control over financial reporting.

Summary of the transactions

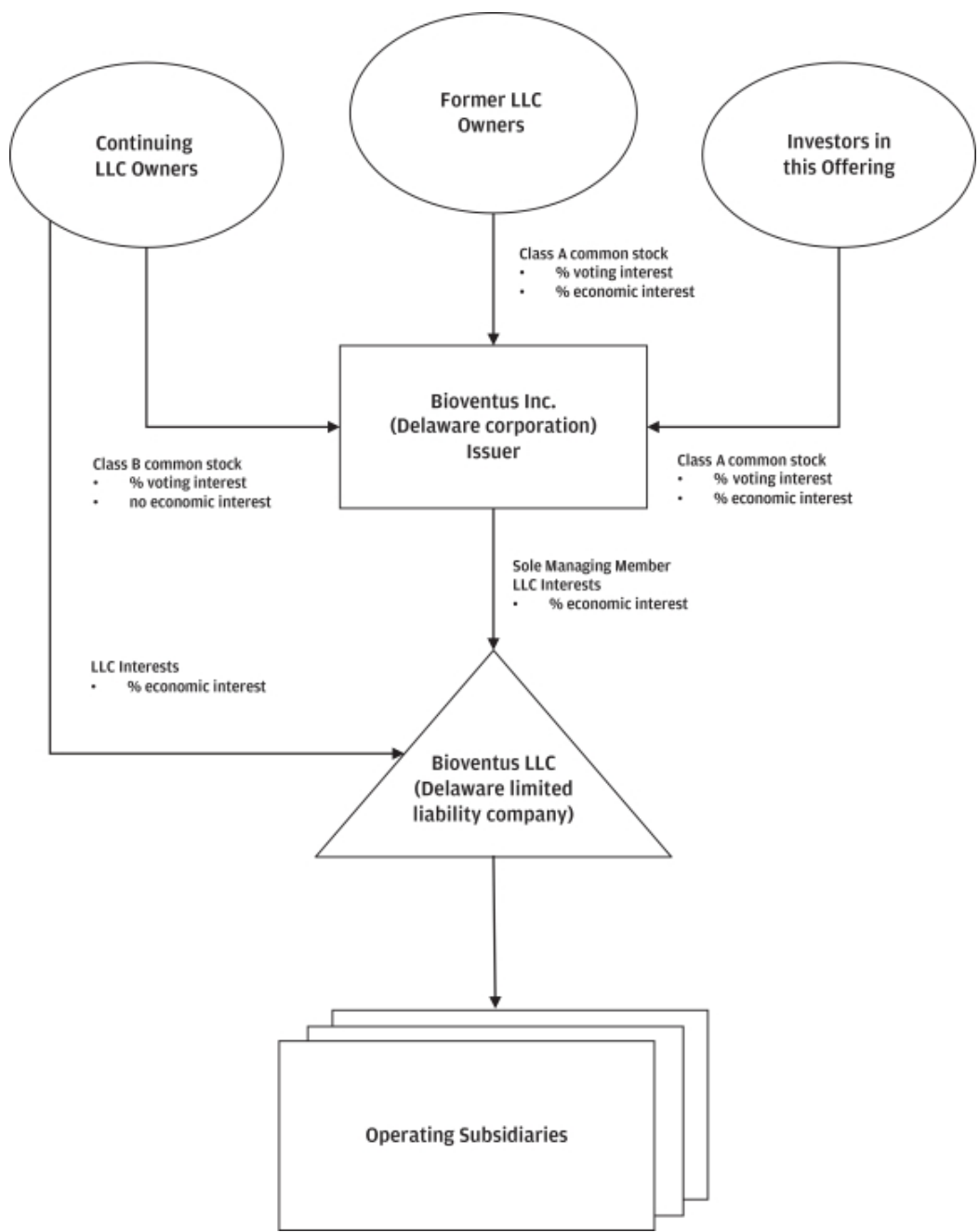
Prior to the consummation of this offering and the organizational transactions described below, the Original LLC Owners are the only owners of Bioventus LLC. Bioventus Inc. was incorporated as a Delaware corporation on December 22, 2015 to serve as the issuer of the Class A common stock offered hereby. In connection with the closing of this offering, we will consummate the following organizational transactions:

- we will amend and restate the amended and restated limited liability company agreement of Bioventus LLC, as amended, effective as of the completion of this offering, or the Bioventus LLC Agreement, to, among other things, (i) provide for LLC Interests that will be the single class of common membership interests in Bioventus LLC, (ii) exchange all of the existing membership interests (including profit interests awarded under the Bioventus LLC Management Incentive Plan, or MIP) in Bioventus LLC for LLC Interests and (iii) appoint Bioventus Inc. as the sole managing member of Bioventus LLC;
- we will amend and restate Bioventus Inc.'s certificate of incorporation to, among other things, (i) provide for Class A common stock and Class B common stock, each share of which entitles its holders to one vote per share on all matters presented to Bioventus Inc.'s stockholders and (ii) issue shares of Class B common stock to the Continuing LLC Owners, on a one-to-one basis with the number of LLC interests they own;
- we will issue shares of our Class A common stock to the purchasers in this offering (or shares of our Class A common stock if the underwriters exercise in full their option to purchase additional shares of Class A common stock);
- we will use all of the net proceeds from this offering (including any net proceeds received upon exercise of the underwriters' option to purchase additional shares of Class A common stock) to acquire newly-issued LLC Interests from Bioventus LLC at a purchase price per interest equal to the initial public offering price per share of Class A common stock, less underwriting discounts and commissions, collectively representing % of Bioventus LLC's outstanding LLC Interests (or %, if the underwriters exercise in full their option to purchase additional shares of Class A common stock);
- Bioventus LLC will use the proceeds from the sale of LLC Interests to Bioventus as described in "Use of proceeds;"
- the Former LLC Owners will exchange their indirect ownership interests in Bioventus LLC for shares of Class A common stock on a one-to-one basis, representing (i) approximately % of the combined voting power of all of Bioventus Inc.'s common stock (or approximately %, if the underwriters exercise in full their option to purchase additional shares of Class A common stock) and (ii) approximately % of the economic interest in the business of Bioventus LLC and its subsidiaries (or approximately %, if the underwriters exercise in full their option to purchase additional shares of Class A common stock);
- the Phantom Plan will be terminated and the Phantom Plan Participants will receive rights to receive up to shares of Class A common stock upon settlement of their awards under the Phantom Plan, with

such settlement expected to take place on the twelve month anniversary following the date of termination of the Phantom Plan as described in “Executive compensation—Narrative to summary compensation table—Equity-based compensation—Phantom profits interest units” (settlement may result in a change in the timing over which compensation expense is recognized as described in “Management’s discussion and analysis of financial condition and results of operations — Components of our results of operations — Selling, general and administrative expenses” and Bioventus will receive a corresponding number of LLC Interests from Bioventus LLC upon settlement);

- the Continuing LLC Owners will continue to own the LLC Interests they received in exchange for their existing membership interests in Bioventus LLC, which LLC Interests, following this offering, will be redeemable, at the election of such members, for newly-issued shares of Class A common stock on a one-for-one basis or, if Bioventus Inc. and such members agree, a cash payment equal to a volume weighted average market price of one share of Class A common stock for each LLC Interest redeemed (subject to customary adjustments, including for stock splits, stock dividends and reclassifications) in accordance with the terms of the Bioventus LLC Agreement; provided that, at Bioventus Inc.’s election, Bioventus Inc. may effect a direct exchange of such Class A common stock or such cash (if mutually agreed) for such LLC Interests. Shares of Class B common stock will be cancelled on a one-for-one basis if we, at the election of a Continuing LLC Owner, redeem or exchange LLC Interests of such Continuing LLC Owners pursuant to the terms of the Bioventus LLC Agreement; and
- Bioventus Inc. will enter into (i) a tax receivable agreement, or Tax Receivable Agreement, with the Continuing LLC Owners, (ii) a stockholders agreement, or the Stockholders Agreement, with the Voting Group and (iii) a registration rights agreement, or the Registration Rights Agreement, with certain of the Original LLC Owners. Upon the consummation of this offering, the Continuing LLC Owners will own (x) _____ shares of Bioventus’ Class B common stock (which will not have any liquidation or distribution rights), representing approximately _____ % of the combined voting power of all of Bioventus’ common stock (or approximately _____ %, if the underwriters exercise in full their option to purchase additional shares of Class A common stock) and (y) LLC Interests, representing approximately _____ % of the economic interest in the business of Bioventus LLC and its subsidiaries (or approximately _____ %, if the underwriters exercise in full their option to purchase additional shares of Class A common stock).
- We refer to the foregoing transactions collectively as the “Transactions.” For more information regarding our structure after the completion of the Transactions, including this offering, see “Transactions.”
- Immediately following this offering, Bioventus Inc. will be a holding company and its principal asset will be the LLC Interests it purchases from Bioventus LLC and acquires from the Former LLC Owners. As the sole managing member of Bioventus LLC, we will operate and control all of the business and affairs of Bioventus LLC and, through Bioventus LLC and its subsidiaries, conduct our business. Accordingly, we will have the sole voting interest in, and control the management of, Bioventus LLC. As a result, we will consolidate Bioventus LLC in our consolidated financial statements and will report a non-controlling interest related to the LLC Interests held by the Continuing LLC Owners on our consolidated financial statements.
 - See “Description of capital stock” for more information about our certificate of incorporation and the terms of the Class A common stock and Class B common stock. See “Certain relationships and related party transactions” for more information about:
 - the Bioventus LLC Agreement, including the terms of the LLC Interests and the redemption right of the Continuing LLC Owners;
 - the Tax Receivable Agreement;
 - the Registration Rights Agreement; and
 - the Stockholders Agreement.

The diagram below depicts our organizational structure after giving effect to the Transactions, including this offering, assuming no exercise by the underwriters of their option to purchase additional shares of Class A common stock.



Implications of being an emerging growth company

We are an “emerging growth company,” as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act, and are eligible to take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies. These include, but are not limited to:

- reduced obligations with respect to financial data, including presenting only two years of audited financial statements and only two years of selected financial data in the registration statement on Form S-1 of which this prospectus is a part;
- reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements;
- not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act; and
- exemptions from the requirements of holding a non-binding advisory vote on executive compensation and the requirement to obtain stockholder approval of any golden parachute payments not previously approved.

We may take advantage of these exemptions until the last day of our fiscal year following the fifth anniversary of the completion of this offering or such earlier time that we are no longer an emerging growth company. We would cease to be an emerging growth company if we have more than \$1.0 billion in annual revenue, we are deemed to be a large accelerated filer under the rules of the Securities and Exchange Commission, or SEC, or we issue more than \$1.0 billion of non-convertible debt over a 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, Section 107 of the JOBS Act provides that an emerging growth company can take advantage of the extended transition period provided in Section 7(a)(2)(B) of the Securities Act of 1933, or the Securities Act, for complying with new or revised accounting standards. In other words, an emerging growth company can delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have irrevocably elected not to avail ourselves of this exemption and, therefore, we will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

Corporate information

Bioventus Inc., the issuer of the Class A common stock in this offering, was incorporated in Delaware on December 22, 2015. Bioventus LLC was organized in Delaware as a limited liability company in November 23, 2011. Our principal executive offices are located at 4721 Emperor Boulevard, Suite 100, Durham, NC 27703. Our telephone number is (919) 474-6700. Our corporate website is www.bioventusglobal.com. The information contained on or that can be accessed through our website is not incorporated by reference into this prospectus, and you should not consider information on our website to be part of this prospectus or in deciding to purchase our Class A common stock.

The offering

Issuer	Bioventus Inc.	
Class A common stock offered by us	shares (or shares)	shares if the underwriters exercise in full their option to purchase additional
Underwriters' option to purchase additional shares of Class A common stock	shares	
Class A common stock to be issued to Former LLC Owners	shares	
Class A common stock to be outstanding immediately after this offering	shares (or shares)	shares if the underwriters exercise in full their option to purchase additional
Class B common stock to be outstanding immediately after this offering	shares, all of which will be owned by the Continuing LLC Owners.	
Voting Rights	Holders of our Class A common stock and Class B common stock will vote together as a single class on all matters presented to stockholders for their vote or approval, except as otherwise required by law. Each share of Class A common stock and Class B common stock will entitle its holder to one vote per share on all such matters. See "Description of capital stock."	
Voting power held by purchasers in this offering	% (or %)	%, if the underwriters exercise in full their option to purchase additional shares of Class A common stock).
Voting power held by the Former LLC Owners	% (or %)	%, if the underwriters exercise in full their option to purchase additional shares of Class A common stock).
Voting power held by all holders of Class A common stock after giving effect to this offering	% (or %)	%, if the underwriters exercise in full their option to purchase additional shares of Class A common stock).
Voting power held by all holders of Class B common stock after giving effect to this offering	% (or %)	%, if the underwriters exercise in full their option to purchase additional shares of Class A common stock).

Voting power held by the Original LLC Owners after giving effect to this offering	% (or %, if the underwriters exercise in full their option to purchase additional shares of Class A common stock).
Ratio of shares of Class A common stock to LLC Interests	Our amended and restated certificate of incorporation and the Bioventus LLC Agreement will require that we at all times maintain a ratio of one LLC Interest owned by us for each share of Class A common stock (subject to certain exceptions for treasury shares and shares underlying certain convertible or exchangeable securities) and Bioventus LLC at all times maintain a one-to-one ratio between the number of shares of Class A common stock issued by us and the number of LLC Interests owned by us, as well as a one-to-one ratio between the number of shares of Class B common stock owned by the Continuing LLC Owners and the number of LLC Interests owned by the Continuing LLC Owners. This construct is intended to result in the Continuing LLC Owners having a voting interest in Bioventus Inc. that is substantially the same as the Continuing LLC Owners' percentage economic interest in Bioventus LLC. The Continuing LLC Owners will own all of our outstanding Class B common stock.
Use of proceeds	<p>We estimate that the net proceeds to us from this offering, after deducting underwriting discounts and commissions and estimated offering expenses, will be approximately \$ million (or approximately \$ million if the underwriters exercise in full their option to purchase additional shares of Class A common stock), assuming the shares are offered at \$ per share (the midpoint of the price range listed on the cover page of this prospectus).</p> <p>We intend to use the net proceeds that we receive from this offering to purchase newly-issued LLC Interests from Bioventus LLC at a purchase price per interest equal to the initial public offering price per share of Class A common stock less underwriting discounts and commissions and estimated offering expenses payable thereon.</p> <p>We intend to cause Bioventus LLC to use such proceeds (i) to repay all of the outstanding borrowings under our second lien term loan facility, (ii) to repay a \$23.5 million promissory note and a \$5.0 million deferred payment relating to the Acquisition when due in 2016 and (iii) with any remaining net proceeds used for general corporate purposes. See "Use of proceeds."</p>
Redemption rights of holders of LLC Interests	The Continuing LLC Owners, from time to time following the offering, may require Bioventus LLC to redeem all or a portion of their LLC Interests for newly-issued shares of Class A common stock on a one-for-one basis or, if Bioventus and such members agree, a cash payment equal to the volume weighted average market price of one share of our Class A common stock for each LLC Interest redeemed (subject to customary adjustments, including for

	<p>stock splits, stock dividends and reclassifications) in accordance with the terms of the Bioventus LLC Agreement; provided that, at Bioventus Inc.'s election, we may effect a direct exchange of such Class A common stock or such cash (if mutually agreed) for such LLC Interests. See "Certain relationships and related party transactions—Bioventus LLC Agreement." Shares of our Class B common stock will be cancelled on a one-for-one basis if we, at the election of a Continuing LLC Owner, redeem or exchange LLC Interests of such Continuing LLC Owner pursuant to the terms of the Bioventus LLC Agreement.</p>
Registration Rights Agreement	<p>Pursuant to the Registration Rights Agreement, we will, subject to the terms and conditions thereof, agree to register the resale of the shares of our Class A common stock that are issuable to certain of the Continuing LLC Owners upon redemption or exchange of their LLC Interests and the shares of our Class A common stock that are issued to certain of the Former LLC Owners in connection with the Transactions. See "Certain relationships and related party transactions—Registration Rights Agreement."</p>
Controlled company	<p>Following this offering we will be a "controlled company" within the meaning of the corporate governance rules of The NASDAQ Global Market. See "Management—Corporate governance."</p>
Dividend policy	<p>We currently intend to retain all available funds and any future earnings for use in the operation of our business, and therefore we do not currently expect to pay any cash dividends on our Class A common stock. Any future determination to pay dividends to holders of Class A common stock will be at the discretion of our board of directors and will depend upon many factors, including our results of operations, financial condition, capital requirements, restrictions in Bioventus LLC's debt agreements and other factors that our board of directors deems relevant. We are a holding company, and substantially all of our operations are carried out by Bioventus LLC and its subsidiaries, and therefore we will only be able to pay dividends from funds we receive from Bioventus LLC. Our ability to pay dividends may also be restricted by the terms of any credit agreement or any debt or preferred equity securities of ours or of our subsidiaries. See "Dividend policy."</p>
Tax Receivable Agreement	<p>We will enter into the Tax Receivable Agreement with Bioventus LLC and the Continuing LLC Owners that will provide for the payment by us to the Continuing LLC Owners of 85% of the amount of tax benefits, if any, that we actually realize (or in some circumstances are deemed to realize) as a result of (i) increases in the tax basis of assets of Bioventus LLC resulting from any redemptions or exchanges of LLC Interests described above under "—The offering—Redemption rights of holders of LLC interests" and (ii) certain other tax benefits related to our making payments under the Tax Receivable Agreement. See "Certain relationships and related party transactions—Tax Receivable Agreement."</p>
Stockholders Agreement	<p>Pursuant to the Stockholders Agreement, the Voting Group will hold Class A common stock and Class B common stock representing approximately % of</p>

	<p>the combined voting power of all of our common stock. Until such time as certain members of the Voting Group collectively control less than % of the combined voting power of all of our common stock, or the Stockholders Agreement is otherwise terminated in accordance with its terms, the parties to the Stockholders Agreement will agree to vote their shares of Class A common stock and Class B common stock in favor of the election of the nominees of certain members of the Voting Group to our board of directors upon their nomination by the nominating and corporate governance committee of our board of directors.</p>
Risk Factors	<p>Investing in shares of our Class A common stock involves a high degree of risk. See “Risk factors” for a discussion of factors you should carefully consider before investing in shares of our Class A common stock.</p>
NASDAQ Global Market symbol	<p>“BIOV”</p>
<p>The number of shares of Class A common stock to be outstanding after this offering is based on the membership interests of Bioventus LLC outstanding as of , 2016, and excludes:</p> <ul style="list-style-type: none">• shares of Class A common stock reserved as of the closing date of this offering for future issuance under our 2016 Incentive Award Plan as described in “Executive compensation—New incentive plans”, consisting of additional shares of Class A common stock reserved for future issuance;• shares of Class A common stock reserved as of the closing date of this offering for future issuance to the Phantom Plan Participants upon settlement of their awards as described in “Executive compensation—Narrative to summary compensation table—Elements of compensation—Equity-based compensation—Phantom profits interest units”; and• shares of Class A common stock reserved as of the closing date of this offering for future issuance upon redemption or exchange of LLC Interests by the Continuing LLC Owners. <p>Unless otherwise indicated, this prospectus assumes no exercise by the underwriters of their option to purchase additional shares of Class A common stock and no exercise of outstanding options after , 2016.</p>	

Summary historical and pro forma financial data

The following tables present the summary historical and pro forma financial data for Bioventus LLC and its subsidiaries for the periods and at the dates indicated. Bioventus LLC is the predecessor of the issuer, Bioventus Inc., for financial reporting purposes. The summary statements of operations data for the years ended December 31, 2013, 2014 and 2015, and the summary balance sheet data for the year ended December 31, 2015 are derived from the Bioventus LLC audited financial statements included elsewhere in this prospectus. You should read this data together with our audited financial statements and related notes appearing elsewhere in this prospectus and the information under the captions "Capitalization," "Selected financial data" and "Management's discussion and analysis of financial condition and results of operations." Our historical results are not necessarily indicative of our future results.

The summary unaudited pro forma consolidated financial data of Bioventus Inc. presented below have been derived from our unaudited pro forma consolidated financial statements included elsewhere in this prospectus. The summary unaudited pro forma balance sheet data as of December 31, 2015 give effect to the Acquisition and the Transactions as described in "Transactions", including the completion of this offering, as if all such transactions had occurred on that date and the summary unaudited pro forma statement of operations data for the year ended December 31, 2015 gives effect to the Transactions, as if all such transactions had occurred January 1, 2015. The unaudited pro forma financial information includes various estimates which are subject to material change and may not be indicative of what our operations or financial position would have been had this offering and related transactions taken place on the dates indicated, or that may be expected to occur in the future. See "Unaudited pro forma consolidated financial information" for a complete description of the adjustments and assumptions underlying the summary unaudited pro forma consolidated financial data.

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The summary historical data of Bioventus Inc. have not been presented as Bioventus Inc. is a newly incorporated entity, has had no business transactions or activities to date and had no assets or liabilities during the periods presented in this section.

(in thousands, except per share and share amounts)	Historical Bioventus LLC			Pro forma Bioventus Inc.(1)
	December 31, 2013	December 31, 2014	Year ended December 31, 2015	Year ended December 31, 2015
Consolidated statements of operations data:				
Net sales	\$ 232,375	\$ 242,893	\$ 253,650	\$
Cost of sales (including depreciation and amortization of \$16,693, \$19,622, and \$22,474, respectively)	71,372	74,609	74,342	
Gross profit	161,003	168,284	179,308	
Selling, general and administrative expenses	150,370	147,058	148,441	
Research and development expenses	10,936	9,465	14,747	
Change in fair value of contingent consideration	—	1,590	19,493	
Restructuring costs	—	1,183	2,645	
Depreciation and amortization	7,765	8,968	10,570	
Operating income (loss)(2)	(8,068)	20	(16,588)	
Interest expense	11,459	11,969	14,229	
Other (income) expense	713	(596)	1,154	
Other expense, net	12,172	11,373	15,383	
Loss before income taxes	(20,240)	(11,353)	(31,971)	
Income tax expenses	2,127	1,547	2,140	
Net loss	(22,367)	(12,900)	(34,111)	
Net loss per unit, basic and diluted	(5.30)	(3.39)	(7.78)	
Weighted average common units outstanding, basic and diluted	4,900	4,900	4,900	
Pro forma weighted average shares of Class A common stock outstanding:				
Basic				
Diluted				
Pro forma net loss per share of Class A common stock outstanding:				
Basic				\$
Diluted				\$
Other Financial Data:				
Adjusted EBITDA(3)	\$ 33,135	\$ 42,875	\$ 53,495	(4)

(in thousands)	Years ended		
	December 31, 2013	December 31, 2014	December 31, 2015
Consolidated statements of cash flows data:			
Net cash (used in) provided by:			
Operating activities	\$ 2,749	\$ 15,109	\$ 18,920
Investing activities	(10,999)	(31,376)	(60,185)
Financing activities	6,801	(6,645)	31,246
Effect of exchange rate changes on cash and cash equivalents	(514)	(1,428)	(805)
Net (decrease) increase in cash and cash equivalents	\$ (1,963)	\$ (24,340)	\$ (10,824)

	As of December 31, 2015	Pro forma Bioventus Inc. As of December 31, 2015
(in thousands)		
Balance sheet data:		
Cash and cash equivalents	\$ 4,950	\$
Total assets	487,352	
Total liabilities	295,014	
Accumulated deficit	(91,840)	
Total members'/stockholders' equity	192,338	
<p>(1) Gives pro forma effect to the Acquisition and the Transactions. See "Unaudited pro forma consolidated financial information."</p> <p>(2) During the year ended December 31, 2013, in connection with our divestiture from S&N, we recorded \$4,690 of transition expenses, such as product rebranding, legal fees and consulting expenses. During the year ended December 31, 2015, we recorded a \$19,493 non-cash expense related to changes in the fair value of contingent consideration related to the OsteoAmp acquisition.</p> <p>(3) We define EBITDA as net loss plus interest expense, income tax expense, and depreciation and amortization. We define Adjusted EBITDA as net income before depreciation and amortization, interest expense and provision for income taxes, adjusted for the impact of certain cash and non-cash and other items that we do not consider in our evaluation of ongoing operating performance. These items include non-cash equity compensation, restructuring costs, contingent consideration, transition costs, severance, OsteoAMP inventory step-up, purchased in-process R&D and R&D costs related to our BMP product candidates. We believe that eliminating the development costs related to our BMP product candidates in our calculation of Adjusted EBITDA is appropriate in creating a useful supplemental measure of our performance because such costs are unrelated to the performance of the remainder of our commercial operations. We present EBITDA and Adjusted EBITDA because we believe they are useful indicators of our operating performance. Our management uses EBITDA and Adjusted EBITDA principally as measures of our operating performance and believes that EBITDA and Adjusted EBITDA are useful to our investors because they are frequently used by securities analysts, investors and other interested parties in their evaluation of the operating performance of companies in industries similar to ours. Our management also uses EBITDA and Adjusted EBITDA for planning purposes, including the preparation of our annual operating budget and financial projections.</p> <p>EBITDA and Adjusted EBITDA are not measurements of financial performance under U.S. generally accepted accounting principles, or GAAP. EBITDA and Adjusted EBITDA should not be considered in isolation or as substitutes for a measure of our liquidity or operating performance prepared in accordance with GAAP, and are not indicative of net loss from operations as determined under GAAP. In addition, EBITDA and Adjusted EBITDA should not be construed as an inference that our future results will be unaffected by unusual or non-recurring items. EBITDA, Adjusted EBITDA and other non-GAAP financial measures have limitations that should be considered before using these measures to evaluate our liquidity or financial performance. Some of these limitations are as follows:</p> <ul style="list-style-type: none"> • EBITDA and Adjusted EBITDA exclude certain tax payments that may require a reduction in cash available to us; • EBITDA and Adjusted EBITDA do not reflect our cash expenditures, or future requirements, for capital expenditures (including capitalized software developmental costs) or contractual commitments; • EBITDA and Adjusted EBITDA do not reflect changes in, or cash requirements for, our working capital needs; 		

- EBITDA and Adjusted EBITDA do not reflect the cash requirements necessary to service interest or principal payments on our debt;
- Adjusted EBITDA excludes certain purchase accounting adjustments related to the Acquisition; and
- Adjusted EBITDA does not include BMP R&D expenses.

In addition, our definition and calculation of EBITDA and Adjusted EBITDA may differ from that of other companies. We compensate for these limitations by relying primarily on our GAAP results and by using non-GAAP financial measures only supplementally.

The following table presents a reconciliation of net loss to EBITDA and Adjusted EBITDA for the periods presented:

	Year ended			Pro Forma Bioventus Inc.
(in thousands, except per share and share amounts)	December 31, 2013	December 31, 2014	December 31, 2015	December 31, 2015
Net loss	\$ (22,367)	\$ (12,900)	\$ (34,111)	\$
Interest expense, net	11,459	11,969	14,229	
Income tax expense	2,127	1,547	2,140	
Depreciation and amortization(a)	24,458	28,820	33,078	
EBITDA	15,677	29,436	15,336	
Non-cash equity compensation(b)	576	2,355	3,325	
Restructuring costs(c)	—	1,183	2,645	
Contingent consideration(d)	—	1,590	19,493	
Transition costs(e)	4,690	—	1,107	
Severance(f)	4,542	—	—	
Inventory step-up(g)	—	1,629	280	
Purchased in-process R&D-BMP(h)	7,000	—	—	
BMP program costs(i)	650	6,682	11,309	
Adjusted EBITDA	\$ 33,135	\$ 42,875	\$ 53,495	\$

- (a) Includes depreciation and amortization recorded in cost of sales of \$16,693, \$19,622 and \$22,474 for the years ended December 31, 2013, 2014, and 2015, respectively, and depreciation and amortization recorded in R&D expenses of \$0, \$230 and \$34 for the years ended December 31, 2013, 2014 and 2015, respectively.
- (b) Represents non-cash equity compensation resulting from two equity-based compensation plans, the MIP and the Phantom Plan.
- (c) Represents restructuring expenses associated with a plan to no longer sell a diagnostic ultrasound product, including the provision for inventory and employee severance. Also includes the restructuring and relocation of certain U.S. finance functions and headcount reductions in our international business to improve operating efficiency.
- (d) Represents non-cash expense related to changes in the fair value of contingent consideration related to the OsteoAMP acquisition.
- (e) Represents expenses related to the transition of Bioventus LLC to become a separate entity as a result of the divestiture from Smith & Nephew, such as product rebranding, legal fees and consulting expenses.
- (f) Represents 2013 severance costs related to headcount reductions as a result of the divestiture from Smith & Nephew.
- (g) Represents non-cash expense recorded in cost of sales for OsteoAMP and BioStructures inventory subject to valuation step-up as a result of purchase accounting.
- (h) Represents initial expense paid to Pfizer to acquire certain rights related to our next-generation BMP product candidates.
- (i) Represents costs related to our next-generation BMP product candidates.
- (4) Gives pro forma effect to the Acquisition, but not the Transactions. The pro forma effect of the Transactions would reduce Adjusted EBITDA by the amount of the results of operations attributable to the non-controlling interests for the applicable period.

Risk factors

Investing in our Class A common stock involves a high degree of risk. These risks include, but are not limited to, those described below, each of which may be relevant to an investment decision. You should carefully consider the risks described below, together with all of the other information in this prospectus, including our financial statements and related notes, before investing in our Class A common stock. The realization of any of these risks could have a significant adverse effect on our reputation, business, including our financial condition, results of operations and growth, which we refer to collectively in this section as our business, and ability to accomplish our strategic objectives. In that event, the trading price of our Class A common stock could decline, and you may lose part or all of your investment.

Risks related to our business

We are highly dependent on a limited number of products.

Our Exogen system and Supartz FX accounted for 89%, 87% and 83% of our total revenue for the years ended December 31, 2013, 2014 and 2015, respectively. We expect that sales of our Active Healing Therapies products will continue to account for a majority of our revenue while we continue to expand and develop our product offerings for our Surgical business. Therefore, our ability to execute our growth strategy and become profitable will depend upon the continued demand for these products. In addition, the term of our distribution agreement for Supartz FX ends in May 2017 with the right to renew the agreement for an additional two year term at our discretion. If our distribution agreement for Supartz FX is not renewed for any reason, our revenue may be impaired if we are unable to introduce a product that effectively replaces or improves upon Supartz FX. If our Exogen system or Supartz FX fail to maintain their market acceptance for any reason, or if we do not renew our distribution agreement with respect to Supartz FX on commercially reasonable terms or at all, our business, results of operations and financial condition may be adversely affected.

We may be unable to launch and successfully commercialize GelSyn-3.

We plan to launch GelSyn-3, a three injection HA viscosupplementation therapy, in the United States during the second half of 2016. Even if we are able to launch GelSyn-3, the commercial success of GelSyn-3 will depend upon the awareness and acceptance of GelSyn-3 among the medical community, including physicians and patients. Market acceptance will depend on a number of factors, including, among others:

- the perceived advantages and disadvantages of GelSyn-3 over existing HA viscosupplementation therapies and other competitive treatments for knee osteoarthritis;
- availability of alternative treatments;
- the extent to which physicians prescribe GelSyn-3;
- the willingness of the target patient population to try new therapies;
- the strength of marketing and distribution support and timing of market introduction of GelSyn-3 and competitive products;
- publicity concerning GelSyn-3, our existing products or competing products and treatments;
- pricing and cost effectiveness of GelSyn-3;
- the effectiveness of our sales and marketing strategies; and
- the willingness of patients to pay out-of-pocket in the absence of third party reimbursement.

Our efforts to educate the medical community about the benefits of GelSyn-3 may require significant resources and we may never be successful. In addition, we may be ineffective at marketing GelSyn-3 to existing patients and customers in such a manner that would effectively replace any loss of revenue associated with any discontinuance of our distribution agreement for Supartz FX. If GelSyn-3 does not achieve an adequate level of acceptance by patients and physicians, our net sales may be adversely affected.

Our commercial success depends on our ability to differentiate the HA viscosupplementation therapies that we own or distribute from alternative therapies for the treatment of osteoarthritis.

Our ability to achieve commercial success will, at least in part, depend on our ability to differentiate the HA viscosupplementation therapies that we own or distribute in such a way that physicians and patients will select them. The HA viscosupplementation therapies that we own or distribute could face competition from steroid injections, single injection HA viscosupplementation therapies and a number of combination HA viscosupplementation/steroid therapies currently in development.

We expect that the HA viscosupplementation therapies that we own or distribute will continue to be used primarily after simple analgesics and steroid injections no longer provide adequate pain relief. In addition, the five and three injection HA viscosupplementation therapies that we distribute or plan to distribute face competition from single injection therapies. Due to the convenience associated with the single injection treatments, it is expected that these products will capture increasing market share of the HA viscosupplementation therapies market, which may adversely affect our business, results of operations and financial condition. There are also a number of combination HA viscosupplementation/steroid therapies currently in development. The American Association of Orthopedic Surgeons, since the release of their 2013 clinical practice guidelines, does not recommend the use of HA for patients with symptomatic knee osteoarthritis because clinical studies have reached inconsistent results on its efficacy. To the extent that any therapies receive approval or alternative therapies receive positive support from the American Association of Orthopedic Surgeons or other physicians, they could reduce the market share represented by HA viscosupplementation therapies for osteoarthritis treatment and adversely affect our commercial success.

If we are unable to differentiate the HA viscosupplementation therapies we own or distribute from other therapies, physicians and patients may not be willing to use them or be willing to switch from existing therapies with which they are familiar. Once physicians incorporate a particular treatment into their practice they may not alter their practice absent compelling clinical evidence of safety and/or effectiveness and/or significant pricing reimbursement advantages.

We compete and may compete in the future against other companies, some of which have longer operating histories, more established products or greater resources than we do, which may prevent us from achieving increased market penetration or improved operating results.

The medical technology industries are characterized by intense competition, subject to rapid change and significantly affected by market activities of industry participants, new product introductions and other technological advancements. We believe that our competitors have historically dedicated and will continue to dedicate significant resources to promote their products or to develop new products for orthobiologics. We have competitors in the United States and internationally, including major medical device and pharmaceutical companies, biotechnology companies and universities and other research institutions.

These companies and other industry participants may develop alternative treatments, products or procedures that compete directly or indirectly with our products. If alternative treatments are, or are perceived to be, superior to our products, sales of our products could be negatively affected and our results of operations could suffer. Our competitors may also develop and patent processes or products earlier than we can or obtain

regulatory clearance or approvals for competing products more rapidly than we can, which could impair our ability to develop and commercialize similar processes or products.

Many of our current and potential competitors are major medical device and pharmaceutical companies that have substantially greater financial, technical and marketing resources than we do, and they may succeed in developing products that would render our products obsolete or noncompetitive. It is also possible that our competition will be able to leverage their large market share to set prices at a level below that which is profitable for us.

Some of our competitors enjoy several competitive advantages over us, including:

- greater financial, human and other resources for product R&D, sales and marketing and litigation;
- significantly greater name recognition;
- control of intellectual property and more expansive portfolios of intellectual property rights, which could impact future products under development;
- greater experience in obtaining and maintaining regulatory clearances or approvals for products and product enhancements;
- established relationships with hospitals and other healthcare providers, physicians, suppliers, customers and third-party payors;
- additional lines of products, and the ability to bundle products to offer greater incentives to gain a competitive advantage; and
- more established sales, marketing and worldwide distribution networks.

The potential introduction by competitors of products that compete with our existing or planned products may also make it difficult to market or sell our products. In addition, the entry of multiple new products and competitors may lead some of our competitors to employ pricing strategies that could adversely affect the pricing of our products and pricing in the market generally.

As a result, our ability to compete successfully will depend on our ability to develop proprietary products that reach the market in a timely manner, receive adequate coverage and reimbursement from third-party payors, and are safer, less invasive and more effective than alternatives available for similar purposes. If we are unable to do so, our sales or margins could decrease, which would adversely affect our business.

If clinical trials of our next-generation BMP product candidates fail to satisfactorily demonstrate safety and efficacy or we are unable to obtain regulatory approval for, or successfully commercialize our next-generation BMP product candidates, our future growth prospects could be adversely affected.

Clinical testing is expensive, is difficult to design and implement, can take many years to complete and is inherently uncertain as to outcome. We expect to commence a Phase 1 clinical trial of one of our next-generation BMP product candidates within 18 months. Over the next several years, we expect to increase our R&D expenses significantly for our next-generation BMP product candidates as we undergo clinical trials to demonstrate the safety and efficacy of our product candidates in order to gain regulatory approvals. Such increased R&D expenses on our next-generation BMP product candidates could potentially be multiples of our current R&D expenses on the BMP product candidates. We cannot guarantee that any clinical trials will be conducted as planned or completed on schedule, if at all. Our existing data based on non-human primate studies may not be indicative of results that we will experience in clinical trials with human subjects. The clinical development of our next-generation BMP product candidates is susceptible to the risk of failure inherent at any stage of product development, including failure to demonstrate efficacy in a clinical trial or across a broad

population of patients, the occurrence of adverse events that are severe or medically or commercially unacceptable, failure to comply with protocols or applicable regulatory requirements and determination by the FDA or any comparable foreign regulatory authority that a product candidate may not continue development or is not approvable. Our failure to successfully complete clinical trials of any of our next-generation BMP product candidates and to demonstrate the efficacy and safety necessary to obtain regulatory approval to market any of our next-generation BMP product candidates could adversely affect our future growth prospects.

Our long-term growth depends on our ability to develop, acquire and commercialize additional orthobiologic products.

Our industry is highly competitive and subject to rapid change and technological advancements. Therefore, it is important to our business that we continue to enhance our product offerings and introduce new products. Developing, acquiring and commercializing products is expensive, time-consuming and could divert management's attention away from our existing orthobiologics business. Even if we are successful in developing additional products, the success of any new product offering or enhancements to existing products will depend on several factors, including our ability to:

- properly identify and anticipate the needs of healthcare professionals and patients;
- develop and introduce new products or product enhancements in a timely manner;
- distinguish our products from those of our competitors;
- avoid infringing upon the intellectual property rights of third-parties and maintain necessary intellectual property licenses from third-parties;
- demonstrate, if required, the safety and efficacy of new products with data from preclinical studies and clinical trials;
- obtain clearance or approval, if required, from the FDA and other regulatory agencies, for such new products or enhancements to existing products, and maintain full compliance with FDA and other regulatory requirements applicable to new devices or products or modifications of existing devices or products;
- provide adequate training to potential users of our products;
- receive adequate coverage and reimbursement for our products; and
- maintain an effective and dedicated sales and marketing team.

If we are unsuccessful in developing, acquiring and commercializing new products, our ability to increase our net sales may be impaired.

Our Surgical business depends on the continued and future acceptance of our bone graft substitutes by the medical community.

New allograft, DBMs, synthetics, BMPs/growth factors, or other enhancements to our existing implants may never achieve broad market acceptance, which can be affected by numerous factors, including lack of clinical acceptance of bone graft substitutes and technologies, introduction of competitive treatment options which render bone graft substitutes and technologies too expensive or obsolete and difficulty training surgeons in the use of bone graft substitutes and technologies.

Market acceptance will also depend on our ability to demonstrate that our existing and new bone graft substitutes and technologies are an attractive alternative to existing treatment options. Our ability to do so will depend on surgeons' evaluations of the clinical safety, efficacy, ease of use, reliability and cost-effectiveness of these treatment options and technologies. For example, we believe that some in the medical community have lingering concerns over the risk of disease transmission through the use of allografts.

Media reports or other negative publicity concerning both methods of tissue recovery from donors and actual or potential disease transmission from donated tissue may limit widespread acceptance by the medical community of our allografts, BMPs/growth factor and DBMs, whether directed at these products generally or our products specifically. Unfavorable reports of improper or illegal tissue recovery practices by any participant in the industry, both in the United States and internationally, as well as incidents of improperly processed tissue leading to transmission of disease, may broadly affect the rate of future tissue donation and market acceptance of allograft based technologies by the medical community.

Furthermore, we believe that even if the medical community generally accepts our bone graft substitutes and technologies, acceptance and recommendations by influential members of the medical community will be important to their broad commercial success. If our bone graft substitutes and technologies are not broadly accepted by the medical community, we may not remain competitive in the market.

Our future growth depends on physician awareness of the distinctive characteristics, benefits, safety, clinical efficacy and cost-effectiveness of our products.

We focus our sales, marketing and training efforts on physicians, surgeons and other health care professionals. The acceptance of our products depends in part on our ability to educate physicians as to the distinctive characteristics, benefits, safety, clinical efficacy and cost-effectiveness of our products compared to alternative products, procedures and therapies. We support our sales force and distributors through in-person educational programs and an online medical education platform, among other things. We also produce marketing materials, including materials outlining our products, for our sales and marketing team in a variety of languages using printed, video and multimedia formats. However, we may not be successful in our efforts to educate physicians and surgeons. If physicians or surgeons are not properly trained, they may misuse or ineffectively use our products, which may result in unsatisfactory patient outcomes, patient injury, negative publicity or lawsuits against us. In addition, a failure to educate physicians or surgeons regarding our products may impair our ability to achieve market acceptance of our products.

We have incurred significant net losses since inception, and we may not be able to achieve or sustain profitability.

We have incurred net losses since our inception. For the years ended December 31, 2013, 2014 and 2015, we had net losses of \$22.4 million, \$12.9 million and \$34.1 million, respectively. As a result of ongoing losses, we had an accumulated deficit of \$91.8 million as of December 31, 2015. Our ability to generate sufficient net sales from our existing products or from any of our products in development or products that we acquire, in order to transition to profitability, is uncertain. Following this offering, we expect that our operating expenses will continue to increase as we continue to develop, enhance and commercialize new products and incur additional operational costs associated with being a public company, such that we may never achieve profitability. Furthermore, even if we do achieve profitability, we may not be able to sustain or increase profitability on an ongoing basis. If we do not achieve profitability, it will be more difficult for us to finance our business and accomplish our strategic objectives.

Pricing pressure from our competitors or hospitals may affect our ability to sell our products at prices necessary to support our current business strategies.

Medical technology companies, healthcare systems and group purchasing organizations have intensified competitive pricing pressure as a result of industry trends and new technologies. Purchasing decisions are gradually shifting to hospitals, integrated delivery networks and other hospital groups, with surgeons and other physicians increasingly acting only as “employees.” Because hospitals that typically bill various third-party payors generally purchase our Surgical products, changes in the purchasing behavior of such hospitals or the

amount such payors are willing to reimburse our customers for procedures using our products, including those as a result of healthcare reform initiatives, could create additional pricing pressure on us. In addition to these competitive forces, we continue to see pricing pressure as hospitals introduce new pricing structures into their contracts and agreements, including fixed price formulas, capitated pricing and episodic or bundled payments intended to contain healthcare costs. If such trends continue to drive down the prices we are able to charge for our products, our profit margins will shrink, adversely affecting our ability to invest in and grow our business.

Healthcare costs have risen significantly over the past decade, which has resulted in or led to numerous cost reform initiatives by legislators, regulators and third-party payors. Cost reform has triggered a consolidation trend in the healthcare industry to aggregate purchasing power, which may create more requests for pricing concessions in the future. Additionally, group purchasing organizations, independent delivery networks and large single accounts may continue to use their market power to consolidate purchasing decisions for physicians. We expect that market demand, government regulation, third-party coverage and reimbursement policies and societal pressures will continue to change the healthcare industry worldwide, resulting in further business consolidations and alliances among our customers, which may exert further downward pressure on the prices of our products.

If we are unable to achieve and maintain adequate levels of coverage and/or reimbursement for the procedures using our products, or any future products we may seek to commercialize, their commercial success may be severely hindered.

Our products, except our Exogen system, are purchased by healthcare providers and customers who typically bill third-party payors, such as government programs, including Medicare and Medicaid, or private insurance plans and healthcare networks, to cover all or a portion of the costs and fees associated with our products. These third-party payors may in turn bill patients for any deductibles or co-payments. For our Exogen system, we typically bill third-party payors and collect co-payments from patients. These third-party payors and insurers may deny reimbursement if they determine that a device or product provided to a patient or used in a procedure does not meet applicable payment criteria or if the policyholder's healthcare insurance benefits are limited.

Limits put on reimbursement by third-party payors, whether foreign or domestic, governmental or commercial, could make it more difficult to buy our products and substantially reduce, or possibly eliminate, patient access to our products. The healthcare industry in the United States has experienced a trend toward cost containment as government and private insurers seek to control rising healthcare costs by imposing lower payment rates and negotiating reduced contract rates with providers. In addition, there is no uniform policy of coverage and reimbursement for our products or procedures using our products among third-party payors in the United States, and coverage and reimbursement for our products and procedures using our products can differ significantly from payor to payor. Payors regularly review new and existing technologies for possible coverage and can, without notice, deny or reverse coverage for new or existing products and treatments. We may also be required to conduct expensive clinical studies to justify coverage and reimbursement or the level of reimbursement relative to other therapies. In addition, should governmental authorities continue to enact legislation or adopt regulations that affect third-party coverage and reimbursement, access to our products and coverage by private or public insurers may be reduced. If third-party payors or insurers that currently cover or reimburse our products or the procedures in which they are used limit their coverage or reimbursement in the future, or if other third-party payors or insurers issue similar policies, this could impact our ability to sell our products, force us to lower the price we charge for our products, and adversely affect our business, results of operations and financial condition.

Our ability to market and sell our products could be harmed by future actions by the Centers for Medicare and Medicaid Services, or CMS (which administers the Medicare program), other government agencies or private payors to diminish payments to healthcare providers. Private payors may adopt coverage decisions and

payment amounts determined by CMS as guidelines in setting their coverage and reimbursement policies. In addition, for some governmental programs, such as Medicaid, coverage and reimbursement differs from state to state. Medicaid payments to physicians, facilities and other providers are often lower than payments by other third-party payors and some state Medicaid programs may not pay an adequate amount for the procedures performed with our products, if any payment is made at all. If CMS, other government agencies or private payors lower their reimbursement rates, the commercial success of our products may be severely hindered.

Our ability to maintain our competitive position depends on our ability to attract, retain and motivate our senior management team and highly qualified personnel, and our failure to do so could have an adverse effect on our results of operations.

We believe that our continued success depends to a significant extent upon the skill, experience and performance of members of our senior management team, who have been critical to the management of our operations and implementation of our strategy, as well as our ability to continue to attract, retain and motivate additional executive officers, and other key employees and consultants, such as those individuals who are engaged in our R&D efforts. The replacement of any of our key personnel likely would involve significant time and costs and may significantly delay or prevent the achievement of our business objectives and could therefore have an adverse impact on our business. In addition, we do not carry any “key person” insurance policies that could offset potential loss of service under applicable circumstances.

Competition for experienced employees in the medical technology industry can be intense. To attract, retain and motivate qualified employees, we plan to utilize stock-based incentive awards such as employee stock options. If the value of such stock awards does not appreciate as measured by the performance of the price of our Class A common stock and ceases to be viewed as a valuable benefit, our ability to attract, retain and motivate our employees could be adversely impacted, which could negatively affect our results of operations and/or require us to increase the amount we expend on cash and other forms of compensation.

Governments outside the United States may not provide coverage or reimbursement of our products, which may adversely affect our net sales.

Acceptance of our products in international markets may depend, in part, upon the availability of coverage and reimbursement within prevailing healthcare payment systems. Reimbursement and healthcare payment systems in international markets vary significantly by country, and include both government-sponsored healthcare and private insurance. Our products may not obtain international coverage and reimbursement approvals in a timely manner, if at all, which may require consumers desiring our product to purchase them directly. Third-party coverage and reimbursement for our products or any of our products in development for which we may receive regulatory approval may not be available or adequate in international markets, which could have an adverse impact on our business.

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

Our business exposes us to the risk of product liability claims that are inherent in the testing, manufacturing and marketing of our products. This risk exists even if a product is cleared or approved for commercial sale by the FDA and manufactured in facilities regulated by the FDA or an applicable foreign regulatory authority. Our products are designed to affect, and any future products will be designed to affect, important bodily functions and processes. Any side effects, manufacturing defects, misuse or abuse associated with our products or our products in development could result in patient injury or death. The medical technology industry has historically been subject to extensive litigation over product liability claims, and we cannot assure you that we will not face product liability suits. We may be subject to product liability claims if our products or products in

development cause, or merely appear to have caused, patient injury or death, even if such injury or death was as a result of supplies or components that are produced by third-party suppliers. Product liability claims may be brought against us by consumers, healthcare providers or others selling or otherwise coming into contact with our products, among others. If we cannot successfully defend ourselves against product liability claims, we will incur substantial liabilities and reputational harm. In addition, regardless of merit or eventual outcome, product liability claims may result in:

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

While we may attempt to manage our product liability exposure by proactively recalling or withdrawing from the market any defective products, any recall or market withdrawal of our products may delay the supply of those products to our customers and may impact our reputation. We cannot assure you that we will be successful in initiating appropriate market recall or market withdrawal efforts that may be required in the future or that these efforts will have the intended effect of preventing product malfunctions and the accompanying product liability that may result. Such recalls and withdrawals may also be used by our competitors to harm our reputation for product safety or be perceived by patients as a safety risk when considering the use of our products, either of which could have an adverse impact on our business.

In addition, although we have product liability and clinical study liability insurance that we believe is appropriate, this insurance is subject to deductibles and coverage limitations. Our current product liability insurance may not continue to be available to us on acceptable terms, if at all, and, if available, coverage may not be adequate to protect us against any future product liability claims. If we are unable to obtain insurance at an acceptable cost or on acceptable terms or otherwise protect against potential product liability claims, we could be exposed to significant liabilities. A product liability claim, recall or other claim with respect to uninsured liabilities or for amounts in excess of insured liabilities could have an adverse impact on our business.

Fluctuations in the demand for our products or our inability to forecast demand accurately may influence the ability of our suppliers to meet our delivery needs or result in excess product inventory.

We are required by some of our contracts with suppliers of our products to forecast future product demand or meet minimum purchase requirements. Our distribution agreement for Supartz FX is subject to certain annual minimum purchase requirements based on a percentage of our Supartz FX annual forecast and our supply agreement for Durolane is subject to a minimum order volume for each order and purchase amounts are also based in part on forecasts. We will also be subject to certain annual minimum purchase requirements for GelSyn-3 and purchase amounts will be based on rolling forecasts. Our forecasts are based on multiple assumptions of product and market demand, which may cause our estimates to be inaccurate. If we underestimate demand, we may not have adequate supplies and could have reduced control over pricing, availability and delivery schedules with our suppliers, which could prevent us from meeting increased customer or consumer demand and harm our business. However, if we overestimate our demand, we may have underutilized assets and may experience reduced margins. If we do not accurately align our supplies with demand, our business, financial condition and results of operations may be adversely affected.

We may face issues with respect to the supply of our products or their components, including increased costs, disruptions of supply, shortages, contaminations or mislabeling.

We are dependent on a limited number of suppliers for the supply of products and components used in the manufacturing process of our products. Our top three suppliers provide us with products and components that constituted 46%, 44% and 48% of our total net sales for the years ended December 31, 2013, 2014 and 2015. Our Exogen system undergoes final assembly with components procured from various suppliers, including a transducer, which is a key component that is supplied by a single source supplier. GelSyn-3, Supartz FX and Durolane are supplied by single-source third-party manufacturers. We also have a supply agreement with Advanced Biologics LLC, or Advanced Biologics, through October 2018 to purchase our OsteoAMP product. We may not be able to renew or enter into new contracts with our existing suppliers following the expiration of such contracts on commercially reasonable terms, or at all.

In particular, the success of our Surgical business, which, among other things, markets and develops tissue-based bone biologic product will depend on our suppliers continuing to have access to donated human cadaveric tissue, as well as the maintenance of high standards in their processing methodology. The supply of such donors can fluctuate over time. We cannot be certain that our current suppliers who rely on allograft bone tissue, plus any additional sources that our suppliers identify in the future, will be sufficient to meet our product needs. Our dependence on a limited number of third-party suppliers and the challenges that they may face in obtaining adequate supplies of allograft bone tissue involve several risks, including limited control over pricing, availability, quality and delivery schedules. We may be unable to find an alternative supplier in a reasonable time period or on commercially reasonable terms, if at all, which would have a material adverse effect on our business, results of operations and financial condition.

If any of our products or the components used in our products are alleged or proven to include quality or product defects, including as a result of improper methods of tissue recovery from donors and disease transmission from donated tissue or illegal harvesting, we may need to find alternate supplies, delay production of our products, discard or otherwise dispose of our products, or engage in a product recall, all of which may have a materially adverse effect on our business, financial condition and results of operations. If our products or the components in our products are affected by adverse prices or quality or other concerns, we may not be able to identify alternate sources of components or other supplies that meet our quality controls and standards to sustain our sales volumes or on commercially reasonable terms, or at all.

We rely on a limited number of third-party manufacturers to manufacture certain of our products.

We have developed in-house assembly capabilities for our Exogen system. Exogen components, Supartz FX, GelSyn-3, Durolane and our Surgical products are generally manufactured by third-party manufacturers. We and our third-party manufacturers are required to comply with the Quality System Regulation, or QSR, which is a set of FDA regulations that establishes current Good Manufacturing Practices, or cGMP, requirements for medical devices and covers the methods and documentation of the design, testing, production, control, quality assurance, labeling, packaging, sterilization, storage and shipping of such devices. There are a limited number of suppliers and third-party manufacturers that operate under FDA's QSR requirements and that have the necessary expertise and capacity to manufacture our products or components for our products. As a result, it may be difficult for us to locate manufacturers for our anticipated future needs, and our anticipated growth could strain the ability of our current suppliers and third-party manufacturers to deliver products, materials and components to us. Upon expiration of our existing agreements with these third-party manufacturers, we may not be able to renegotiate the terms of our agreements with these third-party manufacturers on a commercially reasonable basis, or at all.

If we or our third-party manufacturers fail to maintain facilities in accordance with the FDA's QSR, the noncomplying party could lose the ability to manufacture our products on a commercial scale. Loss of this

manufacturing capability would limit our ability to sell our products, including Supartz FX, Durolane and our Surgical products, which are manufactured by single-source third-party manufacturers. See “Business—Manufacturing and supply.”

The manufacture of our products may not be easily transferable to other sites in the event that any of our third-party manufacturers experience breakdown, failure or substandard performance of equipment, disruption of supply or shortages of, or quality issues with, components of our products and other supplies, labor problems, power outages, adverse weather conditions and natural disasters or the need to comply with environmental and other directives of governmental agencies. From time to time, a third-party manufacturer may experience financial difficulties, bankruptcy or other business disruptions, which could disrupt our supply of finished goods or require that we incur additional expense by providing financial accommodations to the third-party manufacturer or taking other steps to seek to minimize or avoid supply disruption, such as establishing a new third-party manufacturing arrangement with another provider. The loss of any of these third-party manufacturers or the failure for any reason of any of these third-party manufacturers to fulfill their obligations under their agreements with us, including a failure to meet our quality controls and standards, may result in disruptions to our supply of finished goods. We may be unable to locate an additional or alternate third-party manufacturing arrangement that meets our quality controls and standards in a timely manner or on commercially reasonable terms, if at all. If this occurs, our business, financial condition and results of operations will be adversely affected.

If our facilities are damaged or become inoperable, we will be unable to continue to research, develop and manufacture our products and, as a result, there will be an adverse impact on our business until we are able to secure a new facility.

We do not have redundant facilities for the final assembly of our Exogen system. Our other facilities and equipment would be costly to replace and could require substantial lead time to repair or replace. Our facilities may be harmed or rendered inoperable by natural or man-made disasters, including, but not limited to, tornadoes, flooding, fire and power outages, which may render it difficult or impossible for us to perform our research, development, manufacturing and commercialization activities for some period of time. The inability to perform those activities, combined with our limited inventory of supplies, components and finished product, may result in the inability to continue manufacturing or supplying our products during such periods and the loss of customers or harm to our reputation. Although we possess insurance for damage to our facilities and the disruption of our business, this insurance may not be sufficient to cover all of our potential losses and this insurance may not continue to be available to us on acceptable terms, or at all.

If we fail to maintain our numerous contractual relationships, our business, financial condition or results of operations could be adversely affected.

We are party to numerous contracts in the normal course of our business, including our distribution agreement for Supartz FX which has a current term expiring in May 2017 with the right to renew the agreement for an additional two-year term at our discretion. We have contractual relationships with suppliers, distributors and agents, as well as service providers. In the aggregate, these contractual relationships are necessary for us to operate our business. From time to time, we amend, terminate or negotiate our contracts. We may also periodically be subject to, or make claims of breach of contract, or threaten legal action relating to our contracts. These actions may result in litigation. At any one time, we have a number of negotiations under way for new or amended commercial agreements. We devote substantial time, effort and expense to the administration and negotiation of contracts involved in our business. However, these contracts may not continue in effect past their current term or we may not be able to negotiate satisfactory contracts in the future with current or new business partners, which may adversely affect our business, financial condition or results of operations.

If we are unable to manage, maintain and expand our network of direct sales representatives and independent distributors, we may not be able to generate anticipated sales.

Our operating results are directly dependent upon the sales and marketing efforts of not only our direct sales representatives, but also our independent distributors. If our direct sales representatives or independent distributors fail to adequately promote, market and sell our products, our sales could significantly decrease.

We face significant challenges and risks in managing our geographically dispersed distribution network and retaining the individuals who make up that network. If any of our direct sales representatives were to leave us, or if any of our independent distributors were to cease to do business with us, our sales could be adversely affected. In such a situation, we may need to seek alternative independent distributors or increase our reliance on our direct sales representatives, which may not prevent our sales from being adversely affected. If a direct sales representative or independent distributor were to depart and be retained by one of our competitors, we may be unable to prevent them from helping competitors solicit business from our existing customers, which could further adversely affect our sales. Because of the competition for their services, we may be unable to recruit or retain additional qualified independent distributors or to hire additional direct sales representatives to work with us on favorable or commercially reasonable terms, if at all. Failure to hire or retain qualified direct sales representatives or independent distributors would prevent us from maintaining or expanding our business and generating sales.

If we launch new products or increase our marketing efforts with respect to existing products, we will need to expand the reach of our marketing and sales networks. Our future success will depend largely on our ability to continue to hire, train, retain and motivate skilled direct sales representatives and independent distributors with significant technical knowledge in orthobiologics. New hires require training and take time to achieve full productivity. If we fail to train new hires adequately, or if we experience high turnover in our sales force in the future, we cannot be certain that new hires will become as productive as may be necessary to maintain or increase our sales.

If we are unable to expand our sales and marketing capabilities domestically and internationally, we may not be able to effectively commercialize our products, which would adversely affect our business, results of operations and financial condition.

If we choose to acquire or invest in new businesses, products or technologies, we may be unable to complete these acquisitions or to successfully integrate them in a cost-effective and non-disruptive manner.

Our success depends on our ability to enhance and broaden our product offerings in response to changing customer demands, competitive pressures and advances in technologies. In November 2015, we acquired BioStructures, a proprietary developer and marketer of bioresorbable bone graft products for a broad range of spinal and orthopedic surgical applications. We continue to search for viable acquisition candidates or strategic alliances that would expand our market sector or global presence, as well as additional products appropriate for current distribution channels. Accordingly, we may in the future pursue the acquisition of, or joint ventures relating to, new businesses, products or technologies instead of developing them ourselves. Potential and completed acquisitions and strategic investments involve numerous risks, including:

- risks associated with conducting due diligence;
- problems integrating the purchased technologies, products or business operations;
- inability to achieve the anticipated synergies and overpaying for acquisitions or unanticipated costs associated with acquisitions;
- invalid net sales assumptions for potential acquisitions;

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- issues maintaining uniform standards, procedures, controls and policies;
- diversion of management's attention from our core business;
- adverse effects on existing business relationships with suppliers, distributors and customers;
- risks associated with entering new markets in which we have limited or no experience;
- potential loss of key employees of acquired businesses; and
- increased legal, accounting and compliance costs.

We compete with other companies for these opportunities, and we may be unable to consummate such acquisitions or joint ventures on commercially reasonable terms, or at all. In addition, acquired businesses may have ongoing or potential liabilities, legal claims (including tort and/or personal injury claims) or adverse operating issues that we fail to discover through due diligence prior to the acquisition. Even if we are aware of such liabilities, claims or issues, we may not be able to accurately estimate the magnitude of the related liabilities and damages. In particular, to the extent that prior owners of any acquired businesses or properties failed to comply with or otherwise violated applicable laws or regulations, failed to fulfill their contractual obligations to their customers, or failed to satisfy legal obligations to employees or third parties, we, as the successor, may be financially responsible for these violations and failures and may suffer reputational harm or otherwise be adversely affected. Acquisitions also frequently result in the recording of goodwill and other intangible assets which are subject to potential impairment in the future that could harm our financial results. If we were to issue additional equity in connection with such acquisitions, this may dilute our stockholders.

Actual or attempted breaches of security, unauthorized disclosure of information, denial of service attacks or the perception that personal and/or other sensitive or confidential information in our possession is not secure, could result in a material loss of business, substantial legal liability or significant harm to our reputation.

We receive, collect, process, use and store a large amount of information, including personally identifiable, protected health and other sensitive and confidential information. This data is often accessed by us through transmissions over public and private networks, including the Internet. The secure transmission of such information over the Internet and other mechanisms is essential to maintain confidence in our IT systems. Despite the privacy and security measures we have in place to ensure compliance with applicable laws, regulations and contractual requirements, our facilities and systems, and those of our third-party vendors and service providers, are vulnerable to privacy and security incidents including, but not limited to, computer hacking, breaches, acts of vandalism or theft, computer viruses or other forms of cyber-attack, misplaced or lost data, programming and/or human errors or other similar events. A party, whether internal or external, that is able to circumvent our security systems could, among other things, misappropriate or misuse sensitive or confidential information, user information or other proprietary information, or cause significant interruptions in our operations. Internal or external parties may attempt to circumvent our security systems, and we expect that we may in the future experience external attacks on our network, such as, for example, reconnaissance probes, denial of service attempts, malicious software attacks and phishing attacks.

Because the techniques used to circumvent security systems can be highly sophisticated and change frequently, often are not recognized until launched against a target and may originate from less regulated and remote areas around the world, we may be unable to proactively address all possible techniques or implement adequate preventive measures for all situations. Recent, well-publicized attacks on prominent companies have resulted in the theft of significant amounts of sensitive and personal information and demonstrate the sophistication of the perpetrators and magnitude of the threat posed to companies across the nation, including the health care industry.

If someone is able to circumvent or breach our security systems, they could steal any information located therein or cause interruptions to our operations. Security breaches or attempts thereof could also damage our reputation and expose us to a risk of monetary loss and/or litigation, fines and sanctions. We also face risks associated with security breaches affecting third parties that conduct business with us or our customers and others who interact with our data. While we maintain insurance that covers certain security and privacy breaches, we may not carry appropriate insurance or maintain sufficient coverage to compensate for all potential liability.

We are subject to diverse laws and regulations relating to data privacy and security, including the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, and the EU Data Protection Directive (95/46/EC). Complying with these numerous and complex regulations is expensive and difficult, and failure to comply with any privacy laws or data security laws or any security incident or breach involving the misappropriation, loss or other unauthorized use or disclosure of sensitive or confidential patient or consumer information, whether by us, one of our business associates or another third-party, could have a material adverse effect on our business, reputation, financial condition and results of operations, including but not limited to: material fines and penalties; compensatory, special, punitive, and statutory damages; litigation; consent orders regarding our privacy and security practices; requirements that we provide notices, credit monitoring services and/or credit restoration services or other relevant services to impacted individuals; adverse actions against our licenses to do business; and injunctive relief. Furthermore, these rules are constantly changing; for example, the US-EU Safe Harbor framework has been declared invalid and other methods to permit transfer are now under review. Additionally, the costs incurred to remediate any data security or privacy incident could be substantial.

We cannot assure you that any of our third-party service providers with access to our or our customers and/or employees' personally identifiable and other sensitive or confidential information will maintain appropriate policies and practices regarding data privacy and security in compliance with all applicable laws or that they will not experience data security breaches or attempts thereof, which could have a corresponding effect on our business. While we attempt to address the associated risks by requiring all such third-party providers with data access to sign agreements, including business associate agreements, if necessary, obligating them to take security measures to protect such data, we cannot assure you that these contractual measures and our own privacy and security-related safeguards will protect us from the risks associated with the third-party storage and transmission of such information.

Failure of a key information technology and communication system, process or site could adversely affect our business.

We rely extensively on information technology and communication systems and software and hardware products, including those of external providers to conduct business. These systems and software and hardware impact, among other things, ordering and managing components of our products from suppliers, shipping products to customers on a timely basis, processing transactions, coordinating our sales activities across all of our products, summarizing and reporting results of operations, complying with regulatory, legal or tax requirements, data security and other processes necessary to manage our business.

Despite any precautions we may take, our systems and software and hardware could be exposed to damage or interruption from circumstances beyond our control, such as fire, natural disasters, systems failures, power outages, cyber-attacks, terrorism, energy loss, telecommunications failure, security breaches and attempts thereof, computer viruses and similar disruptions affecting the global Internet. Although we have taken steps to prevent system failures and have back-up systems and procedures to prevent or reduce disruptions, such steps may not prevent an interruption of services and our disaster recovery planning may not be adequate or account

for all contingencies. Additionally, our insurance may not adequately compensate us for all losses or failures that may occur. If our systems or software and hardware are damaged or cease to function properly and our business continuity plans do not effectively compensate on a timely basis, we may suffer interruptions in our operations, which could adversely affect our business.

We will need to improve and upgrade our systems and infrastructure as our operations grow in scale in order to maintain the reliability and integrity of our systems and infrastructure. The expansion of our systems and infrastructure will require us to commit substantial financial, operational and technical resources before the volume of our business increases, with no assurance that the volume of business will increase. Any service outages or delays due to the installation of any new or upgraded technology (and customer issues therewith), or the impact on the reliability of our data from any new or upgraded technology could adversely affect our cash flows, operating results and financial condition.

Our business subjects us to economic, political, regulatory and other risks associated with international sales and operations that could materially adversely affect our business, financial condition or results of operations.

Since we sell our products in many different jurisdictions outside the United States, our business is subject to risks associated with conducting business internationally. We anticipate that net sales from international operations will continue to represent a portion of our total net sales. In addition, a number of our third-party manufacturing facilities and suppliers of our products are located outside the United States. Accordingly, our future results could be harmed by a variety of factors, including:

- economic weakness, including inflation, or political instability in particular foreign economies and markets;
- foreign currency fluctuations, which could result in increased operating expenses and reduced revenue, and other obligations incident to doing business in another country;
- customers in some foreign countries potentially having longer payment cycles;
- disadvantages of competing against companies from countries that are not subject to U.S. laws and regulations, including the U.S. Foreign Corrupt Practices Act, or FCPA, regulations of the U.S. Office of Foreign Assets Controls, and U.S. anti-money laundering regulations, as well as exposure of our foreign operations to liability under these regulatory regimes;
- training of third-parties on our products and the procedures in which they are used;
- reduced protection for and greater difficulty enforcing our intellectual property rights;
- unexpected changes in tariffs, trade barriers and regulatory requirements, export licensing requirements or other restrictive actions by foreign governments;
- difficulty in staffing and managing widespread operations, including compliance with tax, employment, immigration and labor laws for employees living or traveling abroad;
- foreign taxes, including withholding of payroll taxes;
- workforce uncertainty in countries where labor unrest is more common than in the United States;
- international regulators and third-party payors requiring additional clinical studies prior to approving or allowing reimbursement for our products;
- complexities associated with managing multiple payor reimbursement regimes, government payors or patient self-pay systems;

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- production shortages resulting from any events affecting material supply or manufacturing capabilities abroad; and
- business interruptions resulting from geopolitical actions, including war and terrorism, or natural disasters including earthquakes, typhoons, floods and fires.

In addition, further expansion into new international markets may require significant resources and the efforts and attention of our management and other personnel, which may divert resources from our existing business operations. As we expand our business internationally, our success will depend, in large part, on our ability to anticipate and effectively manage these and other risks associated with our operations outside of the United States.

Failure to comply with the FCPA and laws associated with our activities outside the United States could adversely affect our business, financial condition or results of operations.

We are subject to the FCPA and other anti-bribery legislation around the world. The FCPA generally prohibits covered entities and their intermediaries from engaging in bribery or making other prohibited payments, offers or promises to foreign officials for the purpose of obtaining or retaining business or other advantages. In addition, the FCPA imposes recordkeeping and internal controls requirements on publicly traded corporations and their foreign affiliates, which are intended to, among other things, prevent the diversion of corporate funds to the payment of bribes and other improper payments, and to prevent the establishment of "off books" slush funds from which such improper payments can be made. As we conduct our business in jurisdictions outside of the United States, we face significant risks if we fail to comply with the FCPA and other laws that prohibit improper payments, offers or promises of payment to foreign governments and their officials and political parties by us and other business entities for the purpose of obtaining or retaining business or other advantages. In many foreign countries, particularly in countries with developing economies, it may be a local custom that businesses operating in such countries engage in business practices that are prohibited by the FCPA or other laws and regulations. Although we have implemented a company policy requiring our employees and consultants to comply with the FCPA and similar laws, such policy may not be effective at preventing all potential FCPA or other violations. Although our agreements with our international distributors clearly state our expectations for our distributors' compliance with U.S. laws, including the FCPA, and provide us with various remedies upon any non-compliance, including the ability to terminate the agreement, we also cannot guarantee our distributors' compliance with U.S. laws, including the FCPA. Therefore there can be no assurance that none of our employees and agents, or those companies to which we outsource certain of our business operations, have not and will not take actions that violate our policies or applicable laws, for which we may be ultimately held responsible. Any violation of the FCPA and related policies could result in severe criminal or civil sanctions, which could have a material and adverse effect on our business, financial condition or results of operations.

Furthermore, we are subject to the export controls and economic embargo rules and regulations of the United States, including, but not limited to, the Export Administration Regulations and trade sanctions against embargoed countries, which are administered by the Office of Foreign Assets Control within the Department of the Treasury, as well as the laws and regulations administered by the Department of Commerce. These regulations limit our ability to market, sell, distribute or otherwise transfer our products or technology to prohibited countries or persons. A determination that we have failed to comply, whether knowingly or inadvertently, may result in substantial penalties, including fines, enforcement actions, civil and/or criminal sanctions, the disgorgement of profits, the imposition of a court-appointed monitor, as well as the denial of export privileges, and may have an adverse effect on our business, financial condition or results of operations.

We are exposed to foreign currency risks, which may materially adversely affect our business, financial condition or results of operations.

Our financial statements are presented in U.S. dollars. Because some of our revenue, expenses, assets and liabilities are denominated in foreign currencies, we are subject to exchange rate and currency risks. In preparing our financial statements, we must convert all non-U.S. dollar financial results to U.S. dollars at varying exchange rates. This may ultimately result in currency gain or loss, the outcome of which we cannot predict. Furthermore, to the extent that we incur expenses or earn revenue in currencies other than in U.S. dollars, any change in the values of those foreign currencies relative to the U.S. dollar could cause our profits to decrease or our products to be less competitive against those of our competitors. To the extent that our current assets denominated in foreign currency are greater or less than our current liabilities denominated in foreign currencies, we face potential foreign exchange exposure.

To minimize such exposures, we have entered, and may in the future enter, into derivative instruments related to forecasted foreign currency transactions or currency hedges from time to time. Losses from changes in the value of the Euro or other foreign currencies relative to the U.S. dollar could materially affect our business, financial condition or results of operations.

We are subject to differing tax rates in several jurisdictions in which we operate, which may adversely affect our results of operations.

We have subsidiaries in several countries. Our business outside of the United States is conducted primarily through a subsidiary in the Netherlands. Income taxes in the Netherlands are imposed on a negotiated percentage of sales. We have an agreement with the Dutch taxing authorities that is subject to renewal every five years where our subsidiary in the Netherlands will incur, but not have to pay income taxes in years when the subsidiary is operating at a loss. As a result, based on the net sales for the year ended December 31, 2013, we recorded a deferred tax liability of about \$0.3 million which is still outstanding at December 31, 2014. If our tax treatment were to change, we may be subject to additional tax liability or penalty, which could adversely affect our profitability.

Our credit agreement contains financial and operating restrictions that may limit our access to credit. If we fail to comply with financial or other covenants in our credit agreement, we may be required to repay indebtedness to our existing lenders, which may harm our liquidity.

As of December 31, 2015, we had outstanding indebtedness of \$8.0 million under our revolving credit facility (which had availability of \$32.0 million) and \$162.5 million under our term loan facilities (net of unamortized original issue discount and deferred financing costs). Our secured credit facilities contain certain covenants, including, but not limited to:

- a minimum fixed charge ratio and a maximum debt leverage ratio requirement as defined in the credit agreement;
- restrictions on the declaration or payment of certain distributions on or in respect of our equity interests;
- restrictions on acquisitions, investments and certain other payments;
- limitations on the incurrence of new indebtedness;
- limitations on transfers, sales and other dispositions; and
- limitations on making any material change in any of our business objectives that could reasonably be expected to have a material adverse effect on the repayment of our credit facilities.

Such indebtedness could have significant consequences, including:

- requiring a substantial portion of our cash flows to be dedicated to debt service payments instead of funding growth, working capital, capital expenditures, investments or other cash requirements;
- reducing our flexibility to adjust to changing business conditions or obtain additional financing;
- exposing us to the risk of increased interest rates as certain of our borrowings, including borrowings under our term loan facilities, are at variable rates, making it more difficult for us to make payments on our indebtedness;
- restricting us from making strategic acquisitions or causing us to make non-strategic divestitures;
- subjecting us to restrictive covenants that may limit our flexibility in operating our business; and
- limiting our ability to obtain additional financing for working capital, capital expenditures, debt service requirements and general corporate or other purposes.

In addition, we may not be able to comply with the financial covenants in the future. In the absence of a waiver from our lenders, any failure by us to comply with these covenants in the future may result in the declaration of an event of default under our secured credit facilities, which could adversely affect our financial position. See “Description of indebtedness.”

Risks related to government regulation

The risk factors listed below describe the risks we face related to government regulation. The companies who manufacture or produce certain of the products we distribute face similar risks with respect to government regulation relating to such products. If such suppliers are unable to comply with government regulations, they may not be able to continue to supply us with products, which could have a material adverse effect on our business, results of operations and financial condition.

Our products and operations are subject to extensive governmental regulation, and our failure to comply with applicable requirements could cause our business to suffer.

The healthcare industry, and in particular the medical device industry, are regulated extensively by governmental authorities, principally the FDA and corresponding state and foreign regulatory agencies and authorities. The FDA and other U.S. and foreign governmental agencies and authorities regulate and oversee, among other things:

- design, development and manufacturing;
- testing, labeling, content and language of instructions for use and storage;
- clinical trials;
- product safety;
- marketing, sales and distribution;
- premarket clearance and approval;
- conformity assessment procedures;
- record-keeping procedures;
- advertising and promotion;
- recalls and other field safety corrective actions;

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- postmarket surveillance, including reporting of deaths or serious injuries and malfunctions that, if they were to recur, could lead to death or serious injury;
- postmarket studies; and
- product import and export.

The regulations to which we are subject are complex and have tended to become more stringent over time. Regulatory changes could result in restrictions on our ability to carry on or expand our operations, higher than anticipated costs or lower than anticipated sales.

The failure to comply with applicable regulations could jeopardize our ability to sell our products and result in enforcement actions such as:

- administrative or judicially imposed sanctions;
- unanticipated expenditures to address or defend such actions;
- injunctions, consent decrees or the imposition of civil penalties or fines;
- recall or seizure of our products;
- total or partial suspension of production or distribution;
- refusal to grant pending or future clearances or approvals for our products;
- withdrawal or suspension of regulatory clearances or approvals;
- clinical holds;
- untitled letters or warning letters;
- refusal to permit the import or export of our products; and
- criminal prosecution of us or our employees.

Any of these sanctions could result in higher than anticipated costs or lower than anticipated sales and harm our reputation, business, financial condition and results of operations.

The FDA regulatory process is expensive, time-consuming and uncertain, and the failure to obtain and maintain required regulatory clearances and approvals could prevent us from commercializing our products.

Before we can market or sell a new medical device or a new use of or a claim for or significant modification to an existing medical device in the United States, we must obtain either clearance from the FDA under Section 510(k) of the Federal Food, Drug, and Cosmetic Act, or FDCA, or approval of a PMA, unless an exemption applies. In the United States, we have obtained 510(k) premarket clearance from the FDA to market products such as Signafuse Bioactive Bone Graft Putty, Interface Bioactive Bone Graft and Signafuse Mineralized Collagen Scaffold. Our Active Healing Therapies, including our Exogen system, Supartz FX and GelSyn-3, have obtained PMA approval. In the 510(k) clearance process, before a device may be marketed, the FDA must determine that a proposed device is “substantially equivalent” to a legally-marketed “predicate” device, which includes a device that has been previously cleared through the 510(k) process, a device that was legally marketed prior to May 28, 1976 (preamendments device), a device that was originally on the U.S. market pursuant to an approved PMA application and later downclassified, or a 510(k)-exempt device. To be “substantially equivalent,” the proposed device must have the same intended use as the predicate device, and either have the same technological characteristics as the predicate device or have different technological characteristics and not raise different questions of safety or effectiveness than the predicate device. Clinical data are sometimes required to support substantial equivalence. In the PMA process, the FDA must determine that a proposed device is safe and effective for its intended use based, in part, on extensive data, including, but not limited to, technical, preclinical, clinical trial, manufacturing and labeling data. The PMA process is typically required for devices that are deemed to pose the greatest risk, such as life-sustaining, life-supporting or implantable devices.

Modifications to products that are approved through a PMA application generally require FDA approval. Similarly, certain modifications made to products cleared through a 510(k) may require a new 510(k) clearance. Both the PMA approval and the 510(k) clearance process can be expensive, lengthy and uncertain. The FDA's 510(k) clearance process usually takes from three to twelve months, but can last longer. The process of obtaining a PMA is much more costly and uncertain than the 510(k) clearance process and generally takes from one to three years, or even longer, from the time the application is filed with the FDA. In addition, a PMA generally requires the performance of one or more clinical trials. Despite the time, effort and cost, we cannot assure you that any particular device will be approved or cleared by the FDA. Any delay or failure to obtain necessary regulatory approvals could harm our business.

Any modification to one of our 510(k) cleared products that would constitute a major change in its intended use, or any change that could significantly affect the safety or effectiveness of the device would require us to obtain a new 510(k) marketing clearance and may even, in some circumstances, require the submission of a PMA application, if the change raises complex or novel scientific issues or the product has a new intended use. The FDA requires every manufacturer to make the determination regarding the need for a new 510(k) submission in the first instance, but the FDA may review any manufacturer's decision. We may make changes to our 510(k)-cleared products in the future that we may determine do not require a new 510(k) clearance or PMA approval. If the FDA disagrees with our decision not to seek a new 510(k) or PMA approval for changes or modifications to existing devices and requires new clearances or approvals, we may be required to recall and stop marketing our products as modified, which could require us to redesign our products, conduct clinical trials to support any modifications, and pay significant regulatory fines or penalties. If there is any delay or failure in obtaining required clearances or approvals or if the FDA requires us to go through a lengthier, more rigorous examination for future products or modifications to existing products than we had expected, our ability to introduce new or enhanced products in a timely manner would be adversely affected, which in turn would result in delayed or no realization of revenue from such product enhancements or new products and could also result in substantial additional costs which could decrease our profitability.

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

- we may not be able to demonstrate to the FDA's satisfaction that the product or modification is substantially equivalent to the proposed predicate device or safe and effective for its intended use;
- the data from our preclinical studies and clinical trials may be insufficient to support clearance or approval, where required; and
- the manufacturing process or facilities we use may not meet applicable requirements.

In addition, the FDA may change its clearance and approval policies, adopt additional regulations or revise existing regulations, or take other actions, which may prevent or delay approval or clearance of our future products under development or impact our ability to modify our currently cleared product on a timely basis. For example, in response to industry and healthcare provider concerns regarding the predictability, consistency and rigor of the 510(k) clearance process, the FDA initiated an evaluation, and in January 2011, announced several proposed actions intended to reform the 510(k) clearance process. The FDA intends these reform actions to improve the efficiency and transparency of the clearance process, as well as bolster patient safety. In addition, as part of the Food and Drug Administration Safety and Innovation Act enacted in 2012, Congress reauthorized the Medical Device User Fee Amendments with various FDA performance goal commitments and enacted several "Medical Device Regulatory Improvements" and miscellaneous reforms, which are further intended to clarify and improve medical device regulation both pre- and post-clearance and approval. Some of these proposals and reforms could impose additional regulatory requirements upon us that could delay our ability to obtain new 510(k) clearances, increase the costs of compliance or restrict our ability to maintain our current clearances.

Even after clearance or approval for our products is obtained, we are subject to extensive postmarket regulation by the FDA. For example, the FDA has the power to require us to conduct postmarket studies. These studies can be very expensive and time-consuming to conduct. Failure to complete such studies in a timely manner could result in the revocation of clearance or approval and the recall or withdrawal of the product, which could prevent us from generating sales from that product in the United States. Our failure to meet strict regulatory requirements could require us to pay fines, incur other costs or even close our facilities. We cannot assure you that we will successfully maintain the clearances or approvals we have received or may receive in the future.

Our HCT/P products are subject to extensive government regulation and our failure to comply with these requirements could cause our business to suffer.

In the United States, we sell human tissue-derived bone graft substitutes, such as PureBone and OsteoAMP, which are referred to by the FDA as HCT/Ps. Certain HCT/Ps are regulated by the FDA solely under Section 361 of the Public Health Service Act and are referred to as "Section 361 HCT/Ps," while other HCT/Ps are subject to FDA's regulatory requirements applicable to medical devices or biologics. Section 361 HCT/Ps do not require 510(k) clearance, PMA approval, biologics license application, or BLA, or other premarket authorization from FDA before marketing. We believe our HCT/Ps are regulated solely under Section 361 of the PHSA, and therefore, we have not sought or obtained 510(k) clearance, PMA approval, or licensure through a BLA. The FDA could disagree with our determination that our human tissue products are Section 361 HCT/Ps and could determine that these products are biologics requiring a BLA or medical devices requiring 510(k) clearance or PMA approval, and could require that we cease marketing such products and/or recall them pending appropriate clearance, approval or license from the FDA. For example, the FDA's Center for Devices and Radiological Health, or CDRH, recently issued us a letter in which it asserted that OsteoAMP meets the definition of a medical device, and requested that we provide CDRH with information in support of our position that OsteoAMP does not require 510(k) clearance or PMA approval. We believe that CDRH's assertion is unfounded and inconsistent with a 2011 letter from the FDA concluding that OsteoAMP meets the criteria for regulation solely as a Section 361 HCT/P. However, if the FDA were to disagree, and if we are otherwise unsuccessful in asserting our position, the FDA may then require that we obtain 510(k) clearance or PMA approval and that we cease marketing OsteoAMP and/or recall OsteoAMP unless and until we receive clearance or approval.

Even though we believe that our HCT/Ps are not subject to premarket approval or review, HCT/Ps are subject to donor eligibility and screening, current Good Tissue Practices, or cGTPs, product labeling, and postmarket reporting requirements. If we or our suppliers fail to comply with these requirements, we could be subject to FDA enforcement action, including, for example, warning letters, fines, injunctions, product recalls or seizures, and, in the most serious cases, criminal penalties.

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

The medical devices that we currently market have been cleared or approved by the FDA and other foreign regulatory bodies for specific treatments. However, we cannot prevent a physician from using our products outside of such cleared or approved indications for use, known as "off-label uses", when in the physician's independent professional medical judgment, he or she deems it appropriate. There may be increased risk of injury to patients if physicians attempt to use our products off-label. Furthermore, the use of our products for indications other than those cleared or approved by the FDA or any foreign regulatory body may not effectively treat such conditions, which could harm our reputation in the marketplace among physicians and patients.

In addition, physicians may misuse our products or use improper techniques if they are not adequately trained, potentially leading to injury and an increased risk of product liability. If our products are misused or used with improper technique, we may become subject to costly litigation by our customers or their patients. Product liability claims could divert management's attention from our core business, be expensive to defend and result in sizeable damage awards against us that may not be covered by insurance.

Further, our promotional materials and training methods must comply with FDA and other applicable laws and regulations, including the prohibition of the promotion of off-label use. If the FDA or any foreign regulatory body determines that our promotional materials or training constitute promotion of an off-label use, it could request that we modify our training or promotional materials or subject us to regulatory or enforcement actions, including the issuance of an untitled letter, a warning letter, injunction, seizure, civil fine or criminal penalties. It is also possible that other federal, state or foreign enforcement authorities might take action if they consider our business activities to constitute promotion of an off-label use, which could result in significant penalties, including, but not limited to, criminal, civil and administrative penalties, damages, fines, disgorgement, exclusion from participation in government healthcare programs, and the curtailment of our operations.

Our products may cause or contribute to adverse medical events that we are required to report to the FDA, and if we fail to do so, we would be subject to sanctions that could materially harm our business.

Some of our marketed products are subject to Medical Device Reporting, or MDR, obligations, which require that we report to the FDA any incident in which our products may have caused or contributed to a death or serious injury, or in which our products malfunctioned and, if the malfunction were to recur, it could likely cause or contribute to a death or serious injury. The timing of our obligation to report under the MDR regulations is triggered by the date we become aware of the adverse event as well as the nature of the event. We may fail to report adverse events of which we become aware within the prescribed timeframe. We may also fail to recognize that we have become aware of a reportable adverse event, especially if it is not reported to us as an adverse event or if it is an adverse event that is unexpected or removed in time from the use of our products. If we fail to comply with our reporting obligations, the FDA could take action including warning letters, untitled letters, administrative actions, criminal prosecution, imposition of civil monetary penalties, revocation of our device clearances, seizure of our products, or delay in clearance of future products.

We and our third-party manufacturers and suppliers are subject to various governmental regulations related to the manufacturing of our products.

Any product for which we obtain clearance or approval, and the manufacturing processes, reporting requirements, post-approval clinical data and promotional activities for such product, will be subject to continued regulatory review, oversight and periodic inspection by the FDA and other domestic and foreign regulatory bodies. In particular, the methods used in, and the facilities used for, the manufacture of the medical device products that we own and distribute must comply with the FDA's QSR, which covers the procedures and documentation of the design, testing, production, control, quality assurance, labeling, packaging, sterilization, storage and shipping of medical devices. The FDA enforces the QSR through periodic announced or unannounced inspections of manufacturing facilities, and both we and our third-party manufacturers and suppliers are subject to such inspections.

Failure to comply with applicable FDA requirements, or later discovery of previously unknown problems with our products or the manufacturing processes of our third-party manufacturers and suppliers, including any failure to take satisfactory corrective action in response to an adverse QSR inspection, can result in, among other things:

- administrative or judicially imposed sanctions;
- injunctions or the imposition of civil penalties or fines;

- recall or seizure of our products;
- total or partial suspension of production or distribution;
- refusal to grant pending or future clearances or approvals for our products;
- withdrawal or suspension of regulatory clearances or approvals;
- clinical holds;
- untitled letters or warning letters;
- refusal to permit the import or export of our products; and
- criminal prosecution of us or our employees.

Any of these actions could prevent or delay us from marketing, distributing or selling our products and would likely harm our business. Furthermore, our suppliers may not currently be or may not continue to be in compliance with all applicable regulatory requirements, which could result in our failure to produce our products on a timely basis and in the required quantities, if at all.

Our products may be subject to product recalls. A recall of our products, either voluntarily or at the direction of the FDA or another governmental authority, or the discovery of serious safety issues with our products, could have a significant adverse impact on us.

The FDA and similar foreign governmental authorities have the authority to require the recall of commercialized products in the event of material deficiencies or defects in their design or manufacture. The FDA's authority to require a recall must be based on a finding that there is reasonable probability that the device would cause serious injury or death. We have in the past instituted a voluntary recall for certain of our products and we may also choose to voluntarily recall a product if any material deficiency is found. A government-mandated or voluntary recall could occur as a result of an unacceptable risk to health, component failures, malfunctions, manufacturing errors, design or labeling defects or other deficiencies and issues. Recalls of any of our products would divert managerial and financial resources and could adversely affect our reputation and business, which could impair our ability to produce our products in a cost-effective and timely manner in order to meet our customers' demands. We may also be subject to liability claims, be required to bear other costs, or take other actions that may have a negative impact on our future sales and our ability to generate profits.

Companies are required to maintain certain records of recalls and corrections, even if they are not reportable to the FDA. We may initiate voluntary recalls or corrections for our products in the future that we determine do not require notification of the FDA. If the FDA disagrees with our determinations, they could require us to report those actions as recalls and we may be subject to enforcement action.

As we conduct clinical studies designed to generate long-term data on some of our existing products, the data we generate may not be consistent with our existing data and may demonstrate less favorable safety or efficacy.

We are currently collecting and plan to continue collecting long-term clinical data regarding the quality, safety and effectiveness of some of our existing products. The clinical data collected and generated as part of these studies will further strengthen our clinical evaluation concerning safety and performance of these products. We believe that this additional data will help with the marketing of our products by providing surgeons and physicians with additional confidence in their long-term safety and efficacy. If the results of these clinical studies are negative, these results could reduce demand for our products and significantly reduce our ability to achieve expected net sales. We do not expect to undertake such studies for all of our products and will only do so in the future where we anticipate the benefits will outweigh the costs and risks. For these reasons, surgeons and physicians could be less likely to purchase our products than competing products for which longer-term clinical data are available. Also, we may not choose or be able to generate the comparative data that some of our competitors have or are generating and we may be subject to greater regulatory and product liability risks.

If we are unable to or unwilling to collect sufficient long-term clinical data supporting the quality, safety and effectiveness of our existing products, our business, results of operations and financial condition could be adversely affected.

We may rely on third parties to conduct our clinical studies and to assist us with preclinical development and if they fail to perform as contractually required or expected, we may not be able to obtain regulatory clearance or approval for or commercialize our products.

We may rely on third parties, such as contract research organizations, medical institutions, clinical investigators and contract laboratories to assist in conducting our clinical studies. If these third parties fail to successfully carry out their contractual duties, comply with applicable regulatory obligations, meet expected deadlines, or if these third parties must be replaced, or if the quality or accuracy of the data they obtain is compromised due to the failure to adhere to clinical protocols or applicable regulatory requirements or for other reasons, our pre-clinical development activities or clinical studies may be extended, delayed, suspended or terminated. Under these circumstances we may not be able to obtain regulatory clearance or approval for, or successfully commercialize, our products on a timely basis, if at all, and our business may be adversely affected.

If clinical studies of our future products do not produce results necessary to support regulatory clearance or approval in the United States or elsewhere, we will be unable to expand the indications for or commercialize these products.

We will likely need to conduct additional clinical studies in the future to support new indications for our products or for clearances or approvals of new product lines, or for the approval of the use of our products in some foreign countries. Clinical testing can take many years, can be expensive and carries uncertain outcomes. The initiation and completion of any of these studies may be prevented, delayed, or halted for numerous reasons. Conducting successful clinical studies requires the enrollment of large numbers of patients, and suitable patients may be difficult to identify and recruit. Patient enrollment in clinical trials and completion of patient participation and follow-up depends on many factors, including the size of the patient population, the nature of the trial protocol, the attractiveness of, or the discomforts and risks associated with, the treatments received by enrolled subjects, the availability of appropriate clinical trial investigators and support staff, proximity of patients to clinical sites, patient ability to meet the eligibility and exclusion criteria for participation in the clinical trial and patient compliance. For example, patients may be discouraged from enrolling in our clinical trials if the trial protocol requires them to undergo extensive post-treatment procedures or follow-up to assess the safety and effectiveness of our products or if they determine that the treatments received under the trial protocols are not attractive or involve unacceptable risks or discomforts. Patients may also not participate in our clinical trials if they choose to participate in contemporaneous clinical trials of competitive products. In addition, patients participating in clinical trials may die before completion of the trial or suffer adverse medical events unrelated to investigational products.

Clinical failure can occur at any stage of testing. Our clinical studies may produce negative or inconclusive results, and we may decide, or regulators may require us, to conduct additional clinical and non-clinical studies in addition to those we have planned. Our failure to adequately demonstrate the safety and efficacy of any of our devices would prevent receipt of regulatory clearance or approval and, ultimately, the commercialization of that device or indication for use. Even if our future products are cleared in the United States, commercialization of our products in foreign countries would require approval by regulatory authorities in those countries. Approval procedures vary among jurisdictions and can involve requirements and administrative review periods different from, and greater than, those in the United States, including additional preclinical studies or clinical trials. Any of these occurrences could have an adverse impact on our business.

Healthcare regulatory reform may affect our ability to sell our products profitably and could have a material adverse effect on our business.

In the United States and in certain foreign jurisdictions, there have been a number of legislative and regulatory proposals to change the regulatory and healthcare systems in ways that could prevent or delay marketing approval of our products in development, restrict or regulate post-approval activities of our products and impact our ability to sell our products profitably. In the United States in recent years, new legislation has been proposed and adopted at the federal and state level that is effecting major changes in the healthcare system. In addition, new regulations and interpretations of existing healthcare statutes and regulations are frequently adopted.

In March 2010, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, or collectively, the Affordable Care Act, were signed into law. While the goal of healthcare reform is to expand coverage to more individuals, it also involves increased government price controls, additional regulatory mandates and other measures designed to constrain medical costs. The Affordable Care Act substantially changes the way healthcare is financed by both governmental and private insurers, encourages improvements in the quality of healthcare items and services and significantly impacts the medical technology industry. Among other things, the Affordable Care Act:

- imposed an annual excise tax of 2.3% on any entity that manufactures or imports prescription drugs, biologic agents and medical devices offered for sale in the United States, which was suspended from January 1, 2016, to December 31, 2017, by the Consolidated Appropriations Act of 2016, but will be reinstated starting January 1, 2018, absent further action;
- increased the statutory minimum rebates a manufacturer must pay under the Medicaid Drug Rebate Program;
- created a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for drugs that are inhaled, infused, instilled, implanted or injected;
- extended manufacturers' Medicaid rebate liability to individuals enrolled in Medicaid managed care organizations;
- expanded eligibility criteria for Medicaid programs;
- established a new Patient-Centered Outcomes Research Institute to oversee and identify priorities in comparative clinical effectiveness research in an effort to coordinate and develop such research;
- implemented payment system reforms including a national pilot program on payment bundling to encourage hospitals, physicians and other providers to improve the coordination, quality and efficiency of certain healthcare services through bundled payment models; and
- created an independent payment advisory board that will submit recommendations to Congress to reduce Medicare spending if projected Medicare spending exceeds a specified growth rate.

In addition, third-party payors regularly update payments to physicians and hospitals where our products are used. For example, on April 16, 2015, President Obama signed into law the Medicare Access and CHIP Reauthorization Act of 2015, or MACRA. Among other things, MACRA extended existing payment rates through June 30, 2015, with a 0.5% update for July 1, 2015 through December 31, 2015, and for each calendar year through 2019, after which there will be a 0% annual update each year through 2025. In addition, the Budget Control Act of 2011 and the Bipartisan Budget Act of 2015 imposed reductions to Medicare payments to providers of up to 2% per fiscal year, which went into effect on April 1, 2013, and, due to subsequent legislative amendments to the statute, will remain in effect through 2025 unless additional Congressional action is taken. In January 2013, President Obama signed into law the American Taxpayer Relief Act of 2012, which, among

other things, further reduced Medicare payments to several types of providers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. These payment updates could directly impact the demand for our products or any products we may develop in the future, if cleared or approved.

We expect that the Affordable Care Act, as well as other healthcare reform measures that may be adopted in the future, may result in additional reductions in Medicare and other healthcare funding, more rigorous coverage criteria, new payment methodologies and in additional downward pressure on the price that we receive for any cleared or approved products. Furthermore, we believe that many individuals who have obtained insurance coverage through the health insurance exchanges which arose as a result of the Affordable Care Act have done so with policies that have significantly higher deductibles than policies they may have obtained prior to its enactment. Because the out-of-pocket costs of undergoing a treatment for patients who have not met their deductible for a given year would be significantly higher than they historically would have been, these patients may be discouraged from undergoing such a treatment due to the cost. Any reluctance on the part of patients to undergo treatment due to cost could impact our ability to expand sales of our products and could adversely impact our business.

Legislative and regulatory proposals have been made to expand post-approval requirements and restrict sales and promotional activities for cleared or approved products. We cannot be sure whether additional legislative changes will be enacted, or whether the FDA regulations, guidance or interpretations will be changed, or what the impact of such changes on the marketing approvals of our products, if any, may be. In addition, increased scrutiny by the U.S. Congress of the FDA's approval process may significantly delay or prevent marketing approval, as well as subject us to more stringent product labeling and postmarketing testing and other requirements.

We may be subject to federal, state and foreign laws and regulations relating to our healthcare business, and could face substantial penalties if we are determined not to have fully complied with such laws, which would have an adverse impact on our business.

We may be subject to healthcare fraud and abuse regulation and enforcement by federal, state and foreign governments, which could adversely impact our business. Healthcare fraud and abuse and health information privacy and security laws potentially applicable to our operations include:

- the federal Anti-Kickback Statute, which applies to our marketing practices, educational programs, pricing and discounting policies and relationships with healthcare providers, by prohibiting, among other things, persons and entities from knowingly and willfully soliciting, receiving, offering or providing remuneration intended to induce or reward, or in return for, either the referral of an individual for, or the purchase, order or recommendation of an item or service reimbursable under a federal healthcare program, such as the Medicare or Medicaid programs. A person or entity does not need to have actual knowledge of this statute or specific intent to violate it to have committed a violation;
- the federal civil and criminal false claims laws and civil monetary penalties laws, including the False Claims Act, which impose civil and criminal penalties through governmental, civil whistleblower or qui tam actions, against individuals or entities for, among other things, knowingly presenting, or causing to be presented, claims for payment or approval to the federal government that are false or fraudulent, knowingly making a false statement material to an obligation to pay or transmit money or property to the federal government or knowingly concealing or knowingly and improperly avoiding or decreasing an obligation to pay or transmit money or property to the federal government. The government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the false claims statutes;

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- HIPAA and its implementing regulations, which created federal criminal laws that prohibit, among other things, executing or attempting to execute a scheme to defraud any healthcare benefit program or making false statements relating to healthcare matters. Similar to the federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it to have committed a violation;
- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, or HITECH, and its implementing regulations, which also imposes certain regulatory and contractual requirements regarding the privacy, security and transmission of personal health information;
- the federal Physician Payments Sunshine Act, which requires manufacturers of drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program (with certain exceptions) to report annually to the government information related to certain payments or other "transfers of value" made to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors) and teaching hospitals, and requires applicable manufacturers to report annually to the government ownership and investment interests held by the physicians described above and their immediate family members and payments or other "transfers of value" to such physician owners;
- federal consumer protection and unfair competition laws, which broadly regulate marketplace activities and activities that potentially harm consumers;
- federal government price reporting laws, which require us to calculate and report complex pricing metrics in an accurate and timely manner to government programs, and where the failure to report such prices may expose us to potential liability; and
- state and foreign law equivalents of each of the above federal laws and regulations, such as anti-kickback and false claims laws that may apply to items or services reimbursed by any third-party payor, including commercial insurers; state laws that require pharmaceutical and device companies to comply with the industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government or otherwise restrict payments that may be made to healthcare providers; state laws that require drug and device manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers or marketing expenditures; and state and foreign laws governing the privacy and security of certain health information, many of which differ from each other in significant ways and some of which may be more stringent than HIPAA or HITECH.

The risk of our being found in violation of these laws and regulations is increased by the fact that many of them have not been fully interpreted by the regulatory authorities or the courts, and their provisions are open to a variety of interpretations. We are unable to predict what additional federal, state or foreign legislation or regulatory initiatives may be enacted in the future regarding our business or the healthcare industry in general, or what effect such legislation or regulations may have on us. Federal, state or foreign governments may impose additional restrictions or adopt interpretations of existing laws that could have a material adverse effect on us.

Because of the breadth of these laws and the narrowness of the statutory exceptions and safe harbors available under such laws, it is possible that some of our business activities, including certain sales and marketing practices and financial arrangements with physicians and other healthcare providers, some of whom recommend, use, prescribe or purchase our products, and other customers, could be subject to challenge under one or more of such laws. Any action against us for violation of these laws, even if we successfully defend against it, could cause us to incur significant legal expenses and divert our management's attention from the operation of our business. If our operations are found to be in violation of any of the laws described above or any other governmental regulations that apply to us, we may be subject to penalties, including civil and

criminal penalties, damages, fines, exclusion from governmental healthcare programs, disgorgement, contractual damages, reputational harm, diminished profits and future earnings, and the curtailment or restructuring of our operations, any of which could adversely impact our business.

If we fail to meet Medicare accreditation and surety bond requirements or DMEPOS supplier standards, it could negatively affect our business operations.

Our Exogen system is classified by CMS and third-party payors as durable medical equipment. Suppliers of Medicare durable medical equipment, prosthetics, orthotics and supplies, or DMEPOS, must be accredited by an approved accreditation organization as meeting DMEPOS quality standards adopted by CMS and are required to meet surety bond requirements. In addition, Medicare DMEPOS suppliers must comply with Medicare supplier standards in order to obtain and retain billing privileges, including meeting all applicable federal and state licensure and regulatory requirements. CMS periodically expands or otherwise clarifies the Medicare DMEPOS supplier standards, and states periodically change licensure requirements, including licensure rules imposing more stringent requirements on out-of-state DMEPOS suppliers. We believe we currently are in compliance with these requirements. If we fail to maintain our Medicare accreditation status and/or do not comply with Medicare surety bond or supplier standard requirements or state licensure requirements in the future, or if these requirements are changed or expanded, it could adversely affect our profits and results of operations.

Audits or denials of our claims by government agencies could reduce our net sales or profits.

In connection with our Exogen system, we submit claims on behalf of patients directly to, and receive payments directly from, the Medicare and Medicaid programs and private payors. Therefore, we are subject to extensive government regulation, including detailed requirements for submitting reimbursement claims under appropriate codes and maintaining certain documentation to support our claims. Medicare contractors and Medicaid agencies periodically conduct pre- and post-payment reviews and other audits of claims and are under increasing pressure to more closely scrutinize healthcare claims and supporting documentation. We may be subject to pre-payment and post-payment reviews, as well as audits of claims in the future. Private payors may from time to time conduct similar reviews and audits. Such reviews and similar audits of our claims could result in material delays in payment, material recoupments, overpayments, or claim denials, or exclusion from participation in the Medicare or Medicaid programs, all of which could reduce our net sales and profitability.

Our operations involve the use of hazardous and toxic materials, and we must comply with environmental, health and safety laws and regulations, which can be expensive, and could have an adverse affect on our business.

We are subject to a variety of federal, state, local and foreign laws and regulations relating to the protection of the environment or of human health and safety, including laws pertaining to the use, handling, storage, disposal and human exposure to hazardous and toxic materials. Liability under environmental laws can be imposed on a joint and several basis (which could result in an entity paying more than its fair share) and without regard to comparative fault, and environmental laws are likely to become more stringent over time, imposing greater compliance costs and increasing risks and penalties associated with violations, which could have an adverse affect on our business.

Our employees, independent distributors, independent contractors, suppliers and other third parties may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements, which could expose us to liability and hurt our reputation.

We are exposed to the risk that our employees, independent distributors, independent contractors, suppliers and others may engage in fraudulent conduct or other illegal activity. Misconduct by these parties could include intentional, reckless and/or negligent conduct or disclosure of unauthorized activities to us that violates: (1) FDA laws and regulations, including those laws that require the reporting of true, complete and accurate

information to the FDA, (2) manufacturing standards, (3) healthcare fraud and abuse laws, or (4) laws that require the true, complete and accurate reporting of financial information or data. Activities subject to these laws also involve the improper use or misrepresentation of information obtained in the course of clinical trials, creating fraudulent data in our preclinical studies or clinical trials or illegal misappropriation of product, which could result in regulatory sanctions and cause serious harm to our reputation. It is not always possible to identify and deter misconduct by employees and other third parties, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. Additionally, we are subject to the risk that a person or government could allege such fraud or other misconduct, even if none occurred.

If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business and financial results, including, without limitation, the imposition of significant civil, criminal and administrative penalties, damages, monetary fines, possible exclusion from participation in Medicare, Medicaid and other federal healthcare programs, reputational harm, diminished profits and future earnings, and curtailment of our operations, any of which could adversely affect our ability to operate our business and our results of operations.

Risks related to intellectual property matters

The risk factors listed below describe the risks we face related to intellectual property matters. The companies who own certain of the products we distribute face similar risks with respect to intellectual property relating to such products. If such suppliers are unable to protect their intellectual property rights, they may not be able to continue to supply us with products, which could have a material adverse effect on our business, results of operations and financial condition.

Protection of our intellectual property rights may be difficult and costly, and our inability to protect our intellectual property could adversely affect our competitive position.

Our success depends significantly on our ability to protect our proprietary rights to the technologies and inventions used in, or embodied by, our products. To protect our proprietary technology, we rely on patent protection, as well as a combination of copyright, trade secret and trademark laws, as well as nondisclosure, confidentiality and other contractual restrictions in our consulting and employment agreements. These legal means afford only limited protection, however, and may not adequately protect our rights or permit us to gain or keep any competitive advantage. Our existing confidentiality and/or invention assignment agreements with employees, contractors, and others who participate in IP development activities could be breached, or we may not enter into sufficient and adequate agreements with those individuals in the first instance, and we may not have adequate remedies for such breaches. Furthermore, we may be subject to, and forced to defend against, third-party claims of ownership to our intellectual property. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights, such as exclusive ownership of, or rights to use, valuable intellectual property. Such an outcome could have a material adverse effect on our business. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees.

Patents

The process of applying for patent protection itself is time-consuming and expensive and we cannot assure you that all of our patent applications will issue as patents or that, if issued, they will issue in a form that will be advantageous to us. The rights granted to us under our patents, including prospective rights sought in our pending patent applications, may not be meaningful or provide us with any commercial advantage, and they

could be opposed, contested, narrowed, or circumvented by our competitors or declared invalid or unenforceable in judicial or administrative proceedings. We may not be able to file and prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner. It is also possible that we will fail to identify patentable aspects of our R&D output before it is too late to obtain patent protection. We may not have the right to control the preparation, filing and prosecution of patent applications, or to maintain the rights to patents licensed to us by third-parties. Therefore, these patents and applications may not be prosecuted or enforced in a manner consistent with the best interests of our business. If such licensors fail to maintain such patents, or lose rights to those patents, the rights we have licensed may be reduced or eliminated, which could also have a material adverse effect on our business.

We own numerous issued patents and pending patent applications relating to our technology and products. The rights granted to us under these patents, including prospective rights sought in our pending patent applications, could be opposed, contested or circumvented by our competitors or declared invalid or unenforceable in judicial or administrative proceedings. If any of our patents are challenged, invalidated or legally circumvented by third-parties, and if we do not own other enforceable patents protecting our products, competitors could market products and use processes that are substantially similar to, or superior to, ours, and our business will suffer. In addition, the patents we own may not be of sufficient scope or strength to provide us with any meaningful protection or commercial advantage, and competitors may be able to design around our patents or develop products that provide outcomes comparable to ours without infringing on our intellectual property rights.

Recent patent reform legislation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents. On September 16, 2011, the Leahy-Smith America Invents Act, or the Leahy-Smith Act was signed into law. The Leahy-Smith Act includes a number of significant changes to U.S. patent law. These include provisions that affect the way patent applications are prosecuted, redefine prior art, may affect patent litigation, and switch the U.S. patent system from a "first-to-invent" system to a "first-to-file" system. Under a "first-to-file" system, assuming the other requirements for patentability are met, the first inventor to file a patent application generally will be entitled to the patent on an invention regardless of whether another inventor had made the invention earlier. The U.S. Patent and Trademark Office, or USPTO, recently developed new regulations and procedures to govern administration of the Leahy-Smith Act, and many of the substantive changes to patent law associated with the Leahy-Smith Act, and in particular, the first-to-file provisions, only became effective on March 16, 2013. Accordingly, it is not clear what, if any, impact the Leahy-Smith Act will have on the operation of our business. However, the Leahy-Smith Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents, all of which could have a material adverse effect on our business and financial condition. In addition, patent reform legislation may pass in the future that could lead to additional uncertainties and increased costs surrounding the prosecution, enforcement, and defense of our patents and applications. We may be subject to a third-party preissuance submission of prior art to the USPTO, or become involved in opposition, derivation, reexamination, inter partes review, post-grant review or other patent office proceedings or litigation, in the United States or elsewhere, challenging our patent rights. An adverse determination in any such submission, proceeding or litigation could reduce the scope of, or invalidate, our patent rights, allow third-parties to commercialize our technology or products and compete directly with us, without payment to us, or result in our inability to manufacture or commercialize products without infringing third-party patent rights.

Moreover, the USPTO and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process. In addition, periodic maintenance fees on issued patents often must be paid to the USPTO and foreign patent agencies over the lifetime of the patent. While an unintentional lapse can in many cases be cured by payment of a late fee or by other means in accordance with the applicable rules, there are situations in which

noncompliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. Non-compliance events that could result in abandonment or lapse of a patent or patent application include, but are not limited to, failure to respond to official actions within prescribed time limits, non-payment of fees and failure to properly legalize and submit formal documents. If we fail to maintain the patents and patent applications covering our products or procedures, we may not be able to stop a competitor from marketing products that are the same as or similar to our products, which would have a material adverse effect on our business.

Furthermore, we do not have patent rights in certain foreign countries in which a market may exist in the future, and the laws of many foreign countries may not protect our intellectual property rights or provide mechanisms for the enforcement of same to the same extent as the laws of the United States. We may need to expend additional resources to defend our intellectual property rights in these countries, and the inability to defend the same could impair our brand or adversely affect the growth of our business internationally. For example, we may not be able to stop a competitor from marketing and selling in foreign countries products that are the same as or similar to our products.

Trademarks

We rely on our trademarks as one means to distinguish our products from the products of our competitors, and have registered or applied to register many of these trademarks. However, we may not be able to successfully secure trademark registrations for all such applications. Third-parties may oppose our trademark applications, or otherwise challenge our use of both registered and unregistered trademarks. In the event that our trademarks are successfully challenged, we could be forced to rebrand our products, which could result in loss of brand recognition and could require us to devote resources to advertising and marketing new brands. Our competitors may infringe our trademarks and we may not have adequate resources to enforce our trademarks. Over the long term, if we are unable to establish name recognition based on our trademarks, then we may not be able to compete effectively and our business may be adversely affected.

Trade secrets and know-how

We may not be able to prevent the unauthorized disclosure or use of our technical knowledge or other trade secrets by consultants, vendors, former employees or current employees, despite the existence generally of confidentiality agreements and other contractual restrictions. Monitoring unauthorized uses and disclosures of our intellectual property is difficult, and we do not know whether the steps we have taken to protect our intellectual property will be effective.

Moreover, our competitors may independently develop equivalent knowledge, methods and know-how. For example, the FDA, as part of its Transparency Initiative, is currently considering whether to make additional information publicly available on a routine basis, including information that we may consider to be trade secrets or other proprietary information, and it is not clear at the present time how the FDA's disclosure policies may change in the future, if at all. Our competitors could use any of the information we may be required to disclose by the FDA to develop independently technology similar to ours. Competitors could purchase our products and attempt to replicate some or all of the competitive advantages we derive from our development efforts, willfully infringe our intellectual property rights, design around our protected technology or develop their own competitive technologies that fall outside of our intellectual property rights. If our intellectual property is not adequately protected so as to protect our market against competitors' products and methods, our competitive position could be adversely affected, as could our business.

If we were to enforce a claim that a third-party had illegally obtained, misappropriated or was using our trade secrets, it would be expensive and time consuming, and the outcome would be unpredictable. In addition, courts outside the United States may be less willing to protect trade secrets. If any of the technology or

information that we protect as trade secrets were to be independently developed by a competitor, we would have no right to prevent them from using that technology or information to compete with us. Misappropriation or unauthorized disclosure of our trade secrets could impair our competitive position and may have a material adverse effect on our business. Additionally, if the steps taken to maintain our trade secrets are deemed inadequate, we may have insufficient recourse against third parties for misappropriating the trade secret.

We depend on certain technologies that are licensed to us. We do not control the intellectual property rights covering these technologies and any loss of our rights to these technologies or the rights licensed to us could prevent us from selling our products, which could adversely impact our business.

We are a party to license agreements under which we are granted rights to intellectual property that is important to our business, and we may need to enter into additional license agreements in the future. For example, we expect that we will be dependent on our licensing arrangements with Pfizer relating to our next-generation BMP product candidates. We rely on these licenses in order to be able to use and sell various proprietary technologies that are material to our business, as well as technologies which we intend to use in our future commercial activities. Our rights to use these technologies and the inventions claimed in the licensed patents are subject to the continuation of and our compliance with the terms of those licenses. Our existing license agreements impose, and we expect that future license agreements will impose on us, various diligence obligations, payment of milestones or royalties and other obligations. If we fail to comply with our obligations under these agreements, or we are subject to a bankruptcy, the licensor may have the right to terminate the license, in which case we would not be able to market products covered by the license, which would adversely affect our financial condition.

As we have done previously, we may need to obtain licenses from third parties to advance our research or allow commercialization of our products and technologies. We may fail to obtain any of these licenses on commercially reasonable terms, if at all. Even if we are able to obtain a license, it may be non-exclusive, thereby giving our competitors access to the same technologies licensed to us. In the event that we are not able to acquire a license, we may be required to expend significant time and resources to develop or license replacement technology. If we are unable to do so, we may be unable to develop or commercialize the affected products and technologies, which could materially harm our business. In addition, the third parties owning such intellectual property rights could seek either an injunction prohibiting our sales, or, with respect to our sales, an obligation on our part to pay royalties or other forms of compensation and damages.

In some cases, we may not have the right to control the prosecution, maintenance, or filing of the patents that are licensed to us, or the enforcement of these patents against infringement by third parties. Some of our patents and patent applications were not filed by us, but were either acquired by us or are licensed from third parties. Thus, these patents and patent applications were not drafted by us or our attorneys, and we did not control or have any input into the prosecution of these patents and patent applications prior to our acquisition of, or our entry into a license with respect to, such patents and patent applications. We cannot be certain that the drafting or prosecution of the patents and patent applications licensed to us will result or has resulted in valid and enforceable patents. Further, we do not always retain complete control over our ability to enforce our licensed patent rights against third-party infringement. In those cases, we cannot be certain that our licensor will elect to enforce these patents to the extent that we would choose to do so, or in a way that will ensure that we retain the rights we currently have under our license. If our licensor fails to properly enforce the patents subject to our license in the event of third-party infringement, our ability to retain our competitive advantage with respect to our products may be materially and adversely affected.

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Licensing of intellectual property is an important part of our business and involves complex legal, business and scientific issues. Disputes may arise between us and our licensors regarding intellectual property that is subject to a license agreement, including:

- the scope of rights granted under the license agreement and other interpretation-related issues;
- whether and the extent to which our technology and processes infringe on intellectual property of the licensor that is not subject to the license agreement;
- our right to sublicense patent and other rights to third parties under collaborative development relationships;
- our diligence obligations with respect to the use of the licensed technology in relation to our development and commercialization of our products and technologies, and what activities satisfy those diligence obligations; and
- the ownership of inventions and know-how resulting from the joint creation or use of intellectual property by our licensors and us and our partners.

In addition, we may become the owner of intellectual property that was obtained through assignments which may be subject to re-assignment back to the original assignor upon our failure to prosecute or maintain such intellectual property, upon our breach of the agreement pursuant to which such intellectual property was assigned, or upon our bankruptcy.

If disputes over intellectual property that we have licensed prevent or impair our ability to maintain our current licensing arrangements on acceptable terms, or if intellectual property is re-assigned back to the original assignor, we may be unable to successfully develop and commercialize the affected products and technologies.

We may in the future be a party to patent and other intellectual property litigation and administrative proceedings that could be costly and could interfere with our ability to successfully market our products.

The medical technology industry has been characterized by frequent and extensive intellectual property litigation and is highly competitive. Our competitors or other patent holders may assert that our products and/or the methods employed in our products are covered by their patents or that we are infringing, misappropriating, or misusing their trademark, copyright, trade secret, and/or other proprietary rights.

If our products or methods are found to infringe, we could be prevented from manufacturing or marketing our products. In the event that we become involved in such a dispute, we may incur significant costs and expenses and may need to devote resources to resolving any claims, which would reduce the cash we have available for operations and may be distracting to management and other employees, including those involved in the development of intellectual property. We do not know whether our competitors or potential competitors have applied for, will apply for, or will obtain patents that will prevent, limit or interfere with our ability to make, use, sell, import or export our products. Because patent applications can take many years to issue, third parties may have currently pending patent applications which may later result in issued patents that our products and technologies may infringe, or which such third parties claim are infringed by the use of our products or technologies. There is no guarantee that patents will not issue in the future from currently pending applications that may be infringed by our technology or products. In addition, identification of third-party patent rights that may be relevant to our technology is difficult because patent searching is imperfect due to differences in terminology among patents, incomplete databases, and difficulty in assessing the meaning of patent claims. Moreover, as the medical technology industry expands and more patents are issued in this area, the risk increases that we may be subject to claims of infringement of the patent rights of third parties. We cannot assure you that we will prevail in such actions, or that other actions alleging misappropriation or misuse by us

of third-party trade secrets or infringement by us of third-party patents, copyrights, trademarks or other rights or challenging the validity of our patents, copyrights, trademarks or other rights will not be asserted against us. Competing products may also be sold in other countries in which our patent coverage might not exist or be as strong. If we lose a foreign patent lawsuit alleging our infringement of a competitor's patents, we could be prevented from marketing our products in one or more foreign countries.

We may also initiate litigation against third-parties to enforce our patent and proprietary rights or to determine the scope, enforceability or validity of the proprietary rights of others. Our intellectual property has not been tested in litigation. If we initiate litigation to protect our rights, we run the risk of having our patents and other proprietary rights invalidated, canceled or narrowed, which could undermine our competitive position. Further, if the scope of protection provided by our patents or patent applications or other proprietary rights is threatened or reduced as a result of litigation, it could discourage third parties from entering into collaborations with us that are important to the commercialization of our products.

Litigation related to infringement and other intellectual property claims, with or without merit, is unpredictable, can be expensive and time-consuming and can divert management's attention from our core business. If we lose this kind of litigation, a court could require us to pay substantial damages, treble damages and attorneys' fees and could prohibit us from using technologies essential to our products, any of which would have a material adverse effect on our business. If relevant patents are upheld as valid and enforceable and we are found to infringe, we could be prevented from selling our products unless we can obtain licenses to use technology or ideas covered by such patents. We do not know whether any necessary licenses would be available to us on satisfactory terms, if at all. If we cannot obtain these licenses, we could be forced to design around those patents at additional cost or abandon the product altogether. As a result, our ability to grow our business and compete in the market may be harmed.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. In addition, during the course of this kind of litigation, there could be public announcements of the results of hearings, motions or other interim proceedings or developments. If these results are perceived to be negative, the price of our Class A common stock could be adversely affected.

In addition, certain of our agreements with suppliers, distributors, customers and other entities with whom we do business may require us to defend or indemnify these parties to the extent they become involved in infringement claims relating to our technologies or products, or rights licensed to them by us. We could also voluntarily agree to defend or indemnify third parties in instances where we are not obligated to do so if we determine it would be important to our business relationships. If we are required or agree to defend or indemnify any of these third parties in connection with any infringement claims, we could incur significant costs and expenses that could adversely affect our business, operating results, or financial condition.

We may be subject to damages resulting from claims that we or our employees have wrongfully used or disclosed alleged trade secrets of our competitors or former employers or are in breach of non-competition or non-solicitation agreements with our competitors or former employers.

We could in the future be subject to claims that we or our employees have inadvertently or otherwise used or disclosed alleged trade secrets or other proprietary information of former employers or competitors. In addition, we may in the future be subject to claims that we caused an employee to breach the terms of his or her non-competition or non-solicitation agreement. Litigation may be necessary to defend against these claims. Even if we are successful in defending against these claims, litigation could result in substantial costs and could be a distraction to management. If our defense to those claims fails, in addition to paying monetary damages, a court could prohibit us from using technologies or features that are essential to our products, if such

technologies or features are found to incorporate or be derived from the trade secrets or other proprietary information of the competitors or former employers. An inability to incorporate technologies or features that are important or essential to our products could have an adverse impact on our business, and may prevent us from selling our products. In addition, we may lose valuable intellectual property rights or personnel. Any litigation or the threat thereof may adversely affect our ability to hire employees or contract with independent sales representatives. A loss of key personnel or their work product could hamper or prevent our ability to commercialize our products, which could have an adverse impact on our business.

Risks related to our company and our organizational structure

Our principal asset after the completion of this offering will be our interest in Bioventus LLC, and, accordingly, we will depend on distributions from Bioventus LLC to pay our taxes and expenses, including payments under the Tax Receivable Agreement. Bioventus LLC's ability to make such distributions may be subject to various limitations and restrictions.

Upon the consummation of this offering, we will be a holding company and will have no material assets other than our ownership of LLC Interests of Bioventus LLC. As such, we will have no independent means of generating net sales or cash flow, and our ability to pay our taxes and operating expenses or declare and pay dividends in the future, if any, will be dependent upon the financial results and cash flows of Bioventus LLC and its subsidiaries and distributions we receive from Bioventus LLC. There can be no assurance that our subsidiaries will generate sufficient cash flow to distribute funds to us or that applicable state law and contractual restrictions, including negative covenants in our debt instruments, will permit such distributions.

Bioventus LLC will continue to be treated as a partnership for U.S. federal income tax purposes and, as such, will not be subject to any entity-level U.S. federal income tax. Instead, taxable income will be allocated to holders of LLC Interests, including us. Accordingly, we will incur income taxes on our allocable share of any net taxable income of Bioventus LLC. Under the terms of the Bioventus LLC Agreement, Bioventus LLC will be obligated to make tax distributions to holders of LLC Interests, including us, subject to any limitations or restrictions in our debt arrangements. In addition to tax expenses, we will also incur expenses related to our operations, including payments under the Tax Receivable Agreement, which we expect could be significant. See "Certain relationships and related party transactions—Tax Receivable Agreement." We intend, as its managing member, to cause Bioventus LLC to make cash distributions to the owners of LLC Interests in an amount sufficient to (i) fund their tax obligations in respect of taxable income allocated to them and (ii) cover our operating expenses, including payments under the Tax Receivable Agreement. However, Bioventus LLC's ability to make such distributions may be subject to various limitations and restrictions, such as restrictions on distributions that would either violate any contract or agreement to which Bioventus LLC is then a party, including debt agreements, or any applicable law, or that would have the effect of rendering Bioventus LLC insolvent. If we do not have sufficient funds to pay taxes or other liabilities or to fund our operations, we may have to borrow funds, which could materially adversely affect our liquidity and financial condition and subject us to various restrictions imposed by any such lenders. To the extent that we are unable to make payments under the Tax Receivable Agreement for any reason, such payments generally will be deferred and will accrue interest until paid; provided, however, that nonpayment for a specified period may constitute a material breach of a material obligation under the Tax Receivable Agreement and therefore accelerate payments due under the Tax Receivable Agreement. See "Certain relationships and related party transactions—Tax Receivable Agreement." In addition, if Bioventus LLC does not have sufficient funds to make distributions, our ability to declare and pay cash dividends will also be restricted or impaired. See "—Risks related to this offering and ownership of our Class A common stock" and "Dividend policy."

The Tax Receivable Agreement with the Continuing LLC Owners requires us to make cash payments to them in respect of certain tax benefits to which we may become entitled, and we expect that the payments we will be required to make could be significant.

Upon the closing of this offering, we will be a party to the Tax Receivable Agreement with the Continuing LLC Owners. Under the Tax Receivable Agreement, we will be required to make cash payments to the Continuing LLC Owners equal to 85% of the tax benefits, if any, that we actually realize, or in certain circumstances are deemed to realize, as a result of (1) the increases in the tax basis of assets of Bioventus LLC resulting from any redemptions or exchanges of LLC Interests from the Continuing LLC Owners as described under “Certain relationships and related party transactions—Bioventus LLC Agreement—LLC Interest Redemption Right,” and (2) certain other tax benefits related to our making payments under the Tax Receivable Agreement. We expect the amount of the cash payments that we will be required to make under the Tax Receivable Agreement will be significant. The actual amount and timing of any payments under the Tax Receivable Agreement will vary depending upon a number of factors, including the timing of redemptions or exchanges by the holders of LLC Interests, the amount of gain recognized by such holders of LLC Interests, the amount and timing of the taxable income we generate in the future, and the federal tax rates then applicable. Any payments made by us to the Continuing LLC Owners under the Tax Receivable Agreement will generally reduce the amount of overall cash flow that might have otherwise been available to us. To the extent that we are unable to make timely payments under the Tax Receivable Agreement for any reason, the unpaid amounts will be deferred and will accrue interest until paid by us. Furthermore, our future obligation to make payments under the Tax Receivable Agreement could make us a less attractive target for an acquisition, particularly in the case of an acquirer that cannot use some or all of the tax benefits that are the subject of the Tax Receivable Agreement. Payments under the Tax Receivable Agreement are not conditioned on any Continuing LLC Owner’s continued ownership of LLC Interests or our Class A common stock after this offering. For more information, see “Certain relationships and related party transactions—Tax Receivable Agreement.”

Our organizational structure, including the Tax Receivable Agreement, confers certain tax benefits upon the Continuing LLC Owners that may not benefit Class A common stockholders to the same extent as they will benefit the Continuing LLC Owners.

Our organizational structure, including the Tax Receivable Agreement, confers certain tax benefits upon the Continuing LLC Owners that may not benefit the holders of our Class A common stock to the same extent as they will benefit the Continuing LLC Owners. We will enter into the Tax Receivable Agreement with Bioventus LLC and the Continuing LLC Owners that will provide for our payment to the Continuing LLC Owners of 85% of the amount of tax benefits, if any, that we actually realize (or in some circumstances are deemed to realize) as a result of (i) increases in the tax basis of assets of Bioventus LLC resulting from any redemptions or exchanges of LLC Interests described above under “—The offering—Redemption rights of holders of LLC interests” and (ii) certain other tax benefits related to our making payments under the Tax Receivable Agreement. See “Certain relationships and related party transactions—Tax Receivable Agreement.” Although Bioventus will retain 15% of such tax benefits, this and other aspects of our organizational structure may adversely impact the future trading market for the Class A common stock.

In certain cases, payments under the Tax Receivable Agreement to the Continuing LLC Owners may be accelerated or significantly exceed the actual benefits we realize in respect of the tax attributes subject to the Tax Receivable Agreement.

The Tax Receivable Agreement provides that if (i) we materially breach any of our material obligations under the Tax Receivable Agreement, (ii) certain mergers, asset sales, other forms of business combinations or other changes of control were to occur on or before December 31, 2017 or (iii) we elect an early termination of the Tax Receivable Agreement, then our obligations or our successor’s obligations under the Tax Receivable Agreement

to make payments thereunder would be based on certain assumptions, including an assumption that we would have sufficient taxable income to fully utilize all potential future tax benefits that are subject to the Tax Receivable Agreement.

As a result of the foregoing, (i) we could be required to make payments under the Tax Receivable Agreement that are greater than the specified percentage of the actual benefits we ultimately realize in respect of the tax benefits that are subject to the Tax Receivable Agreement and (ii) if we materially breach any of our material obligations under the Tax Receivable Agreement or if we elect to terminate the Tax Receivable Agreement early, we would be required to make an immediate cash payment equal to the present value of the anticipated future tax benefits that are the subject of the Tax Receivable Agreement, which payment may be made significantly in advance of the actual realization, if any, of such future tax benefits. In these situations, our obligations under the Tax Receivable Agreement could have a substantial negative impact on our liquidity and could have the effect of delaying, deferring or preventing certain mergers, asset sales, other forms of business combinations or other changes of control. There can be no assurance that we will be able to fund or finance our obligations under the Tax Receivable Agreement. See “Certain relationships and related party transactions—Tax Receivables Agreement.”

We may make payments to the Continuing LLC Owners under the Tax Receivable Agreement that exceed the tax benefits initially claimed by us in the event that any tax benefits are disallowed by a taxing authority.

Payments under the Tax Receivable Agreement will be based on the tax reporting positions that we determine, and the Internal Revenue Service, or the IRS, or another tax authority may challenge all or part of the tax basis increases, as well as other related tax positions we take, and a court could sustain such challenge. Pursuant to the Tax Receivable Agreement, the Continuing LLC Owners are required to reimburse us for any cash payments previously made to the Continuing LLC Owners under the Tax Receivable Agreement in the event that any tax benefits initially claimed by us and for which payment has been made to a Continuing LLC Owner are subsequently challenged by a taxing authority and are ultimately disallowed. In addition, but without duplication of any amounts previously reimbursed by any Continuing LLC Owner, any excess cash payments made by us to a Continuing LLC Owner will be netted against any future cash payments that we might otherwise be required to make to such Continuing LLC Owner under the terms of the Tax Receivable Agreement. However, we might not determine that we have effectively made an excess cash payment to a Continuing LLC Owner for a number of years following the initial time of such payment. Moreover, there can be no assurance that any excess cash payments for which the Continuing LLC Owners have a reimbursement obligation under the Tax Receivable Agreement will be repaid to us. As a result, payments could be made under the Tax Receivable Agreement in excess of the tax savings that we realize in respect of the tax attributes with respect to a Continuing LLC Owner that are the subject of the Tax Receivable Agreement. See “Certain relationships and related party transactions—Tax Receivable Agreement.”

Unanticipated changes in effective tax rates or adverse outcomes resulting from examination of our income or other tax returns could adversely affect our results of operations and financial condition.

We are subject to taxes by the U.S. federal, state, local and foreign tax authorities, and our tax liabilities will be affected by the allocation of expenses to differing jurisdictions. Our future effective tax rates could be subject to volatility or adversely affected by a number of factors, including:

- changes in the valuation of our deferred tax assets and liabilities;
- expected timing and amount of the release of any tax valuation allowances;
- tax effects of stock-based compensation;
- changes in tax laws, regulations or interpretations thereof; or

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- future earnings being lower than anticipated in countries where we have lower statutory tax rates and higher than anticipated earnings in countries where we have higher statutory tax rates.

In addition, we may be subject to audits of our income, sales and other transaction taxes by U.S. federal, state, local and foreign taxing authorities. Outcomes from these audits could have an adverse effect on our operating results and financial condition.

If we were deemed to be an investment company under the Investment Company Act of 1940, as amended, or the 1940 Act, as a result of our ownership of Bioventus LLC, applicable restrictions could make it impractical for us to continue our business as contemplated and could have a material adverse effect on our business.

Under Sections 3(a)(1)(A) and (C) of the 1940 Act, a company generally will be deemed to be an “investment company” for purposes of the 1940 Act if (i) it is, or holds itself out as being, engaged primarily, or proposes to engage primarily, in the business of investing, reinvesting or trading in securities or (ii) it engages, or proposes to engage, in the business of investing, reinvesting, owning, holding or trading in securities and it owns or proposes to acquire investment securities having a value exceeding 40% of the value of its total assets (exclusive of U.S. government securities and cash items) on an unconsolidated basis. We do not believe that we are an “investment company,” as such term is defined in either of those sections of the 1940 Act.

As the sole managing member of Bioventus LLC, we will control and operate Bioventus LLC. On that basis, we believe that our interest in Bioventus LLC is not an “investment security” as that term is used in the 1940 Act. However, if we were to cease participation in the management of Bioventus LLC, our interest in Bioventus LLC could be deemed an “investment security” for purposes of the 1940 Act.

We and Bioventus LLC intend to conduct our operations so that we will not be deemed an investment company. However, if we were to be deemed an investment company, restrictions imposed by the 1940 Act, including limitations on our capital structure and our ability to transact with affiliates, could make it impractical for us to continue our business as contemplated and could have a material adverse effect on our business.

Bioventus is controlled by the Original LLC Owners, whose interests may differ from those of our public stockholders.

Immediately following this offering and the application of net proceeds from this offering, the Original LLC Owners will control approximately % of the combined voting power of our common stock through their ownership of both Class A common stock and Class B common stock. The Original LLC Owners will, for the foreseeable future, have significant influence over corporate management and affairs, and will be able to control virtually all matters requiring stockholder approval. The Original LLC Owners are able to, subject to applicable law, and the voting arrangements described in “Certain relationships and related party transactions,” elect a majority of the members of our board of directors and control actions to be taken by us and our board of directors, including amendments to our certificate of incorporation and bylaws and approval of significant corporate transactions, including mergers and sales of substantially all of our assets. The directors so elected will have the authority, subject to the terms of our indebtedness and applicable rules and regulations, to issue additional stock, implement stock repurchase programs, declare dividends and make other decisions. It is possible that the interests of the Original LLC Owners may in some circumstances conflict with our interests and the interests of our other stockholders, including you. For example, the Continuing LLC Owners may have different tax positions from us, especially in light of the Tax Receivable Agreement that could influence their decisions regarding whether and when to dispose of assets, whether and when to incur new or refinance existing indebtedness, and whether and when Bioventus should terminate the Tax Receivable Agreement and accelerate its obligations thereunder. In addition, the determination of future tax reporting

positions and the structuring of future transactions may take into consideration these Continuing LLC Owners' tax or other considerations, which may differ from the considerations of us or our other stockholders. See "Certain relationships and related party transactions—Tax Receivable Agreement."

In addition, certain of the Original LLC Owners are in the business of making or advising on investments in companies and may hold, and may from time to time in the future acquire interests in or provide advice to businesses that directly or indirectly compete with certain portions of our business or the business of our suppliers. Our amended and restated certificate of incorporation will provide that, to the fullest extent permitted by law, none of the Original LLC Owners or any director who is not employed by us or his or her affiliates will have any duty to refrain from engaging in a corporate opportunity in the same or similar lines of business as us. The Original LLC Owners may also pursue acquisitions that may be complementary to our business, and, as a result, those acquisition opportunities may not be available to us.

We are a "controlled company" within the meaning of The NASDAQ Global Market listing standards and, as a result, will qualify for, and intend to rely on, exemptions from certain corporate governance requirements. You will not have the same protections afforded to stockholders of companies that are subject to such requirements.

Substantially concurrent with the closing of this offering, the Voting Group, which will hold Class A common stock and Class B common stock representing approximately % of the combined voting power of our common stock, intends to enter into the Stockholders Agreement. Pursuant to the terms of the Stockholders Agreement, until such time as certain members of the Voting Group collectively control less than % of the combined voting power of our Class A and Class B common stock, or the Stockholders Agreement is otherwise terminated in accordance with its terms, the parties to the Stockholders Agreement will agree to vote their shares of Class A common stock and Class B common stock in favor of the election of the nominees of certain members of the Voting Group to our board of directors upon their nomination by the nominating and corporate governance committee of our board of directors. See "Description of capital stock—Stockholders Agreement."

Because of the Stockholders Agreement and the aggregate voting power over our Class A common stock and Class B common stock held by the parties to the Stockholders Agreement, we are considered a "controlled company" for the purposes of The NASDAQ Global Market. As such, we are exempt from certain corporate governance requirements of The NASDAQ Global Market, including (1) the requirement that a majority of the board of directors consist of independent directors, (2) the requirement that we have a nominating and corporate governance committee that is composed entirely of independent directors and (3) the requirement that we have a compensation committee that is composed entirely of independent directors. Following this offering, we intend to rely on some or all of these exemptions. As a result, we will not have a majority of independent directors and our compensation and nominating and corporate governance committees will not consist entirely of independent directors. Accordingly, you will not have the same protections afforded to stockholders of companies that are subject to all of the corporate governance requirements of The NASDAQ Global Market.

Our anti-takeover provisions could prevent or delay a change in control of our Company, even if such change in control would be beneficial to our stockholders.

Provisions of our amended and restated certificate of incorporation and amended and restated bylaws as well as provisions of Delaware law could discourage, delay or prevent a merger, acquisition or other change in control of our Company, even if such change in control would be beneficial to our stockholders. These provisions include:

- authorizing the issuance of "blank check" preferred stock that could be issued by our board of directors to increase the number of outstanding shares and thwart a takeover attempt;

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- establishing a classified board of directors so that not all members of our board of directors are elected at one time;
- the removal of directors only for cause;
- prohibiting the use of cumulative voting for the election of directors;
- limiting the ability of stockholders to call special meetings or amend our bylaws;
- requiring all stockholder actions to be taken at a meeting of our stockholders; and
- establishing advance notice and duration of ownership requirements for nominations for election to the board of directors or for proposing matters that can be acted upon by stockholders at stockholder meetings.

These provisions could also discourage proxy contests and make it more difficult for you and other stockholders to elect directors of your choosing and to cause us to take other corporate actions you desire. In addition, because our board of directors is responsible for appointing the members of our management team, these provisions could in turn affect any attempt by our stockholders to replace current members of our management team.

In addition, the Delaware General Corporation Law, or DGCL, to which we are subject, prohibits us, except under specified circumstances, from engaging in any mergers, significant sales of stock or assets or business combinations with any stockholder or group of stockholders who owns at least 15% of our common stock.

We may issue shares of preferred stock in the future, which could make it difficult for another company to acquire us or could otherwise adversely affect holders of our Class A common stock, which could depress the price of our Class A common stock.

Our amended and restated certificate of incorporation will authorize us to issue one or more series of preferred stock. Our board of directors will have the authority to determine the preferences, limitations and relative rights of the shares of preferred stock and to fix the number of shares constituting any series and the designation of such series, without any further vote or action by our stockholders. Our preferred stock could be issued with voting, liquidation, dividend and other rights superior to the rights of our Class A common stock. The potential issuance of preferred stock may delay or prevent a change in control of us, discourage bids for our Class A common stock at a premium to the market price, and materially and adversely affect the market price and the voting and other rights of the holders of our Class A common stock.

The provision of our certificate of incorporation requiring exclusive venue in the Court of Chancery in the State of Delaware for certain types of lawsuits may have the effect of discouraging lawsuits against our directors and officers.

Our amended and restated certificate of incorporation will require, to the fullest extent permitted by law, that (i) any derivative action or proceeding brought on our behalf, (ii) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers or other employees to us or our stockholders, (iii) any action asserting a claim against us arising pursuant to any provision of the DGCL or our amended and restated certificate of incorporation or the bylaws or (iv) any action asserting a claim against us governed by the internal affairs doctrine will have to be brought only in the Court of Chancery in the State of Delaware. Although we believe this provision benefits us by providing increased consistency in the application of Delaware law in the types of lawsuits to which it applies, the provision may have the effect of discouraging lawsuits against our directors and officers.

Risks related to this offering and ownership of our Class A common stock

We have identified material weaknesses in our internal control over financial reporting. If we are unable to remediate these material weaknesses, or if we experience additional material weaknesses in the future or otherwise fail to maintain an effective system of internal controls, we may not be able to accurately or timely report our financial condition or results of operations, or comply with the accounting and reporting requirements applicable to public companies, which may adversely affect investor confidence in us and, as a result, the value of our common stock.

In connection with the audit of our consolidated financial statements as of and for the years ended December 31, 2015, 2014 and 2013, we identified material weaknesses in our internal control over financial reporting. A material weakness is a deficiency, or combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of our financial statements will not be prevented or detected on a timely basis.

Our material weaknesses include the following:

We did not design and maintain an effective control environment with the sufficient number of professionals with an appropriate level of accounting knowledge, training and experience to properly analyze, record and disclose accounting matters commensurate with our accounting and financial reporting requirements. This material weakness contributed to additional material weaknesses in which, specifically, we did not design and maintain effective internal control over:

- Accuracy and presentation and disclosure of sales allowances, distributor fees and bad debt expenses;
- Cutoff and presentation and disclosures of revenue recognition, including the impact on cost of sales and selling, general and administrative expenses (sales commissions) and sales allowances;
- Completeness, accuracy and presentation and disclosure of intangible asset amortization expense, including impact on inventories and cost of sales;
- Completeness, accuracy, valuation and presentation and disclosure of the contingent consideration liability related to business combinations;
- Completeness, accuracy, and presentation and disclosure of foreign currency transaction and translation gains and losses;
- Completeness, existence, accuracy and presentation and disclosure of quarterly income tax provisions and deferred tax accounting; and
- Completeness, accuracy and presentation and disclosure of the statement of cash flows, specifically as it relates to excess partner distributions, payment of in-kind interest and the impact of foreign currency.

These material weaknesses resulted in adjustments to accounts receivable, inventories, goodwill, accrued sales commissions, contingent consideration liabilities, equity, net sales, cost of sales, selling, general and administrative expenses, depreciation and amortization, foreign currency transaction gains and losses and income tax expense in our consolidated financial statements for the years ended December 31, 2013, 2014 and 2015.

As a public company, we will be required to maintain internal control over financial reporting and to report any material weaknesses in such internal controls. However, neither our management nor an independent registered public accounting firm has ever performed an evaluation of our internal control over financial reporting in accordance with the rules of the SEC because no such evaluation has been required. Had we or our

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independent registered public accounting firm performed an evaluation of our internal control over financial reporting, additional material weaknesses may have been identified. Further, due to a transition period established by the rules of the SEC for newly public companies, our management will not be required to provide a management report on internal control over financial reporting until our second annual report following this offering, which will be our fiscal year ending December 31, 2017, and our independent registered public accounting firm will not be required to attest to our management report on internal control over financial reporting until we are no longer an EGC.

We have implemented and are still in the process of implementing measures designed to improve our internal control over financial reporting and remediate our material weaknesses, including:

- The augmentation and training of our accounting staff, including the appointment of a U.S. Controller at our headquarters in January 2015;
- The continued centralization of accounting operations, including the transition of the U.S. accounts receivable, inventory and accounts payables functions to our headquarters during the first half of 2015;
- The commissioning of a third-party specialist to provide recommendations for improvement and to assist us in formalizing the documentation of our accounting policies and internal controls; and
- The hiring of a Chief Accounting Officer in April 2016.

In addition, during 2016, we plan to review our finance and accounting function to evaluate whether we have a sufficient number of appropriately trained and experienced personnel and plan to add new personnel as we deem necessary.

Although we plan to complete these remediation activities as quickly as possible, we cannot at this time estimate how long the remediation will take or cost to achieve, and our initiatives may not prove to be successful in remediating these weaknesses and deficiencies. We cannot assure you that the measures we have taken to date, together with any measures we may take in the future, will be sufficient to remediate our material weaknesses in our internal control over financial reporting or to avoid potential future material weaknesses. If the steps we take do not correct the material weaknesses in a timely manner, we will be unable to conclude that we maintain effective internal control over financial reporting, and as a public company, we may have difficulties reporting on a quarterly basis with a review from our independent registered auditors in a timely manner. Accordingly, there could continue to be a reasonable possibility that a material misstatement of our financial statements would not be prevented or detected on a timely basis. As we have not fully completed the updates to our control structure and have not completed our evaluation and testing of these controls, we cannot be certain that these material weaknesses will be fully remediated or that other material weaknesses and any significant deficiencies or internal control deficiencies will not be discovered in the future.

If we are unable to successfully remediate our existing or any future material weaknesses in our internal control over financial reporting, or identify any additional existing material weaknesses, the accuracy and timing of our financial reporting may be adversely affected, we may be unable to maintain compliance with securities law requirements regarding timely filing of periodic reports in addition to applicable stock exchange listing requirements, our reported financial results may be materially misstated, investors may lose confidence in our financial reporting and our stock price may decline as a result. As a result of such failures, we could also become subject to investigations by the stock exchange on which our securities are listed, the SEC or other regulatory authorities, and become subject to litigation from investors and stockholders, which could harm our reputation, business, financial condition and divert financial and management resources from our core business.

Immediately following the consummation of this offering, the Continuing LLC Owners will have the right to have their LLC Interests redeemed pursuant to the terms of the Bioventus LLC Agreement, which may dilute the owners of the Class A common stock.

After this offering, we will have an aggregate of more than _____ shares of Class A common stock authorized but unissued, including approximately _____ shares of Class A common stock issuable upon redemption of LLC Interests that will be held by the Continuing LLC Owners. Bioventus LLC will enter into the Bioventus LLC Agreement and, subject to certain restrictions set forth therein and as described elsewhere in this prospectus, the Continuing LLC Owners will be entitled to have their LLC Interests redeemed for shares of our Class A common stock. We also intend to enter into a Registration Rights Agreement pursuant to which the shares of Class A common stock issued to certain of the Original LLC Owners upon redemption of LLC Interests and the shares of Class A common stock issued to certain of the Former LLC Owners in connection with the Transactions will be eligible for resale, subject to certain limitations set forth therein. See “Certain relationships and related party transactions—Registration Rights Agreement.”

We cannot predict the size of future issuances of our Class A common stock or the effect, if any, that future issuances and sales of shares of our Class A common stock may have on the market price of our Class A common stock. Sales or distributions of substantial amounts of our Class A common stock, including shares issued in connection with an acquisition, or the perception that such sales or distributions could occur, may cause the market price of our Class A common stock to decline.

If you purchase shares of Class A common stock in this offering, you will incur immediate and substantial dilution.

Dilution is the difference between the offering price per share and the pro forma net tangible book value per share of our Class A common stock immediately after the offering. The price you pay for shares of our Class A common stock sold in this offering is substantially higher than our pro forma net tangible book value per share immediately after this offering. If you purchase shares of Class A common stock in this offering, you will incur immediate and substantial dilution in the amount of \$ _____ per share based upon an assumed initial public offering price of \$ _____ per share (the midpoint of the price range listed on the cover page of this prospectus). In addition, you may also experience additional dilution, or potential dilution, upon future equity issuances to investors or to our employees and directors under our stock option plan and any other equity incentive plans we may adopt. As a result of this dilution, investors purchasing shares of Class A common stock in this offering may receive significantly less than the full purchase price that they paid for the stock purchased in this offering in the event of liquidation. See “Dilution.”

We do not know whether a market will develop for our Class A common stock or what the market price of our Class A common stock will be and as a result it may be difficult for you to sell your shares of our Class A common stock.

Before this offering, there was no public trading market for our Class A common stock. If a market for our Class A common stock does not develop or is not sustained, it may be difficult for you to sell your shares of Class A common stock at an attractive price or at all. We cannot predict the prices at which our Class A common stock will trade. It is possible that in one or more future periods our results of operations may be below the expectations of public market analysts and investors and, as a result of these and other factors, the price of our Class A common stock may fall.

If securities analysts do not publish research or reports about our business or if they publish negative evaluations of our Class A common stock, the price of our Class A common stock could decline.

The trading market for our Class A common stock will rely in part on the research and reports that industry or securities analysts publish about us or our business. We do not currently have and may never obtain research

coverage by industry or securities analysts. If no or few analysts commence coverage of us, the trading price of our stock would likely decrease. Even if we do obtain analyst coverage, if one or more of the analysts covering our business downgrade their evaluations of our stock, the price of our Class A common stock could decline. If one or more of these analysts cease to cover our Class A common stock, we could lose visibility in the market for our stock, which in turn could cause our Class A common stock price to decline.

We expect that the price of our Class A common stock will fluctuate substantially and you may not be able to sell the shares you purchase in this offering at or above the offering price.

The initial public offering price for the shares of our Class A common stock sold in this offering is determined by negotiation between the representatives of the underwriters and us. This price may not reflect the market price of our Class A common stock following this offering. In addition, the market price of our Class A common stock is likely to be highly volatile and may fluctuate substantially due to many factors, including:

- the volume and timing of sales of our products;
- the introduction of new products or product enhancements by us or our competitors;
- disputes or other developments with respect to our or others' intellectual property rights;
- our ability to develop, obtain regulatory clearance or approval for, and market new and enhanced products on a timely basis;
- product liability claims or other litigation;
- quarterly variations in our results of operations or those of our competitors;
- media exposure of our products or our competitors;
- changes in governmental regulations or in reimbursement;
- changes in earnings estimates or recommendations by securities analysts; and
- general market conditions and other factors, including factors unrelated to our operating performance or the operating performance of our competitors.

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

In addition, in the past, class action litigation has often been instituted against companies whose securities have experienced periods of volatility in market price. Securities litigation brought against us following volatility in our stock price, regardless of the merit or ultimate results of such litigation, could result in substantial costs, which would hurt our financial condition and operating results and divert management's attention and resources from our business.

Substantial future sales of our Class A common stock, or the perception in the public markets that these sales may occur, may depress our stock price.

Sales of substantial amounts of our Class A common stock in the public market after this offering, or the perception that these sales could occur, could adversely affect the price of our Class A common stock and could

impair our ability to raise capital through the sale of additional shares. Upon the closing of this offering, we will have _____ shares of Class A common stock outstanding (or _____ if the underwriters exercise in full their option to purchase additional shares of Class A common stock) and _____ shares of Class A common stock that would be issuable upon redemption or exchange of LLC Interests authorized but unissued. The shares of Class A common stock offered in this offering will be freely tradable without restriction under the Securities Act, except for any shares of our common stock that may be held or acquired by our directors, executive officers and other affiliates, as that term is defined in the Securities Act, which will be restricted securities under the Securities Act. Restricted securities may not be sold in the public market unless the sale is registered under the Securities Act or an exemption from registration is available.

The remaining outstanding _____ shares of Class A common stock held by the Former LLC Owners will be subject to certain restrictions on sale. We and each of our executive officers and directors and the Original LLC Owners, which collectively will hold _____ % of our outstanding capital stock (including shares of Class A common stock issuable upon redemption or exchange of LLC Interests) upon the closing of this offering, have agreed with the underwriters, subject to certain exceptions, not to dispose of or hedge any shares of common stock or securities convertible into or exchangeable for (including the LLC Interests), or that represent the right to receive, shares of common stock during the period from the date of this prospectus continuing through the date 180 days after the date of this prospectus, except with the prior written consent of J.P. Morgan Securities LLC. See “Underwriting.” All of our shares of common stock outstanding as of the date of this prospectus (and shares of Class A common stock issuable upon redemption or exchange of LLC Interests) may be sold in the public market by existing stockholders following the expiration of the applicable lock-up period, subject to applicable limitations imposed under federal securities laws.

We also intend to enter into a Registration Rights Agreement pursuant to which the shares of Class A common stock issued upon redemption or exchange of LLC Interests held by certain of the Continuing LLC Owners and the shares of Class A common stock issued to certain of the Former LLC Owners in connection with the Transactions will be eligible for resale, subject to certain limitations set forth therein. See “Certain relationships and related party transactions—Registration Rights Agreement.”

We intend to file one or more registration statements on Form S-8 under the Securities Act to register all shares of Class A common stock subject to outstanding options and Class A common stock issued or issuable under our stock plans. Any such Form S-8 registration statements will automatically become effective upon filing. Accordingly, shares registered under such registration statements will be available for sale in the open market following the expiration of the applicable lock-up period. We expect that the initial registration statement on Form S-8 will cover _____ shares of our Class A common stock.

See “Shares eligible for future sale” for a more detailed description of the restrictions on selling shares of our common stock after this offering.

In the future, we may also issue additional securities if we need to raise capital, which could constitute a material portion of our then-outstanding shares of common stock.

Taking advantage of the reduced disclosure requirements applicable to “emerging growth companies” may make our Class A common stock less attractive to investors.

The JOBS Act provides that, so long as a company qualifies as an “emerging growth company,” it will, among other things:

- be exempt from the provisions of Section 404(b) of the Sarbanes-Oxley Act requiring that its independent registered public accounting firm provide an attestation report on the effectiveness of its internal control over financial reporting;

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- be exempt from the “say on pay” and “say on golden parachute” advisory vote requirements of the Dodd-Frank Wall Street Reform and Customer Protection Act, or the Dodd-Frank Act;
- be exempt from certain disclosure requirements of the Dodd-Frank Act relating to compensation of its executive officers and be permitted to omit the detailed compensation discussion and analysis from proxy statements and reports filed under the Securities Exchange Act of 1934, as amended, or the Exchange Act; and
- be permitted to provide a reduced level of disclosure concerning executive compensation and be exempt from any rules that may be adopted by the Public Company Accounting Oversight Board requiring mandatory audit firm rotations or a supplement to the auditor’s report on the financial statements.

We currently intend to take advantage of the reduced disclosure requirements regarding executive compensation. We have irrevocably elected not to take advantage of the extension of time to comply with new or revised financial accounting standards available under Section 107(b) of the JOBS Act. We could be an emerging growth company for up to five years after this offering. If we remain an “emerging growth company” after fiscal 2015, we may take advantage of other exemptions, including the exemptions from the advisory vote requirements and executive compensation disclosures under the Dodd-Frank Act and the exemption from the provisions of Section 404(b) of the Sarbanes-Oxley Act. We cannot predict if investors will find our Class A common stock less attractive if we elect to rely on these exemptions, or if taking advantage of these exemptions would result in less active trading or more volatility in the price of our Class A common stock. Also, as a result of our intention to take advantage of some or all of the reduced regulatory and reporting requirements that will be available to us as long as we qualify as an “emerging growth company,” our financial statements may not be comparable to those of companies that fully comply with regulatory and reporting requirements upon the public company effective dates.

We will incur increased costs as a result of becoming a public company and in the administration of our organizational structure.

As a public company, we will incur significant legal, accounting, insurance and other expenses that we have not incurred as a private company, including costs associated with public company reporting requirements. We also have incurred and will incur costs associated with the Sarbanes-Oxley Act and related rules implemented by the SEC. Following the completion of this offering, we will incur ongoing periodic expenses in connection with the administration of our organizational structure. The expenses incurred by public companies generally for reporting and corporate governance purposes have been increasing. We expect these rules and regulations to increase our legal and financial compliance costs and to make some activities more time-consuming and costly, although we are currently unable to estimate these costs with any degree of certainty. In estimating these costs, we took into account expenses related to insurance, legal, accounting, and compliance activities, as well as other expenses not currently incurred. These laws and regulations could also make it more difficult or costly for us to obtain certain types of insurance, including director and officer liability insurance, and we may be forced to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. These laws and regulations could also make it more difficult for us to attract and retain qualified persons to serve on our board of directors, our board committees or as our executive officers. Furthermore, if we are unable to satisfy our obligations as a public company, we could be subject to delisting of our common stock, fines, sanctions and other regulatory action and potentially civil litigation.

Failure to establish and maintain effective internal controls in accordance with Section 404 of the Sarbanes-Oxley Act could have a material adverse effect on our business and stock price.

We are not currently required to comply with the rules of the SEC implementing Section 404 of the Sarbanes-Oxley Act and are therefore not required to make a formal assessment of the effectiveness of our internal control over financial reporting for that purpose. Upon becoming a public company, we will be required

to comply with the SEC's rules implementing Sections 302 and 404 of the Sarbanes-Oxley Act, which will require management to certify financial and other information in our quarterly and annual reports and provide an annual management report on the effectiveness of controls over financial reporting. Though we will be required to disclose changes made in our internal controls and procedures on a quarterly basis, we will not be required to make our first annual assessment of our internal control over financial reporting pursuant to Section 404 until the year following our first annual report required to be filed with the SEC. However, as an emerging growth company, our independent registered public accounting firm will not be required to formally attest to the effectiveness of our internal control over financial reporting pursuant to Section 404 until the later of the year following our first annual report required to be filed with the SEC or the date we are no longer an emerging growth company. At such time, our independent registered public accounting firm may issue a report that is adverse in the event it is not satisfied with the level at which our controls are documented, designed or operating.

To comply with the requirements of being a public company, we have undertaken various actions, and may need to take additional actions, such as implementing new internal controls and procedures and hiring additional accounting or internal audit staff. Testing and maintaining internal controls can divert our management's attention from other matters that are important to the operation of our business. Additionally, when evaluating our internal controls over financial reporting, we may identify material weaknesses that we may not be able to remediate in time to meet the applicable deadline imposed upon us for compliance with the requirements of Section 404. For example, material weaknesses were identified during fiscal 2014 relating to prior period financial statement close procedures. If we identify any additional material weaknesses in our internal controls over financial reporting or are unable to comply with the requirements of Section 404 in a timely manner or assert that our internal controls over financial reporting is effective, or if our independent registered public accounting firm is unable to express an opinion as to the effectiveness of our internal controls over financial reporting once we are no longer an emerging growth company, investors may lose confidence in the accuracy and completeness of our financial reports and the market price of our Class A common stock could be negatively affected, and we could become subject to investigations by the stock exchange on which our securities are listed, the SEC or other regulatory authorities, which could require additional financial and management resources.

We do not currently expect to pay any cash dividends.

The continued operation and expansion of our business will require substantial funding. Accordingly, we do not currently expect to pay any cash dividends on shares of our Class A common stock. Any determination to pay dividends in the future will be at the discretion of our board of directors and will depend upon results of operations, financial condition, contractual restrictions, restrictions imposed by applicable law and other factors our board of directors deems relevant. We are a holding company, and substantially all of our operations are carried out by Bioventus LLC and its subsidiaries. Therefore our ability to generate cash to make future dividend payments, if any, is highly dependent on the earnings and the receipt of funds from our subsidiaries via dividends or intercompany loans. Under our secured credit facilities, Bioventus LLC is restricted from paying cash dividends, and we expect these restrictions to continue in the future. Our ability to pay dividends may also be restricted by the terms of any future credit agreement or any future debt or preferred equity securities of ours or of our subsidiaries. In addition, Delaware law may impose requirements that may restrict our ability to pay dividends to holders of our common stock. Accordingly, if you purchase shares in this offering, realization of a gain on your investment will depend on the appreciation of the price of our Class A common stock, which may never occur. Investors seeking cash dividends in the foreseeable future should not purchase our Class A common stock.

Special note regarding forward-looking statements

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

- our dependence on a limited number of products;
- competition against other companies;
- clinical trials of our next-generation BMP product candidates;
- our ability to differentiate the HA viscosupplementation therapies we own or distribute;
- our ability to develop and commercialize additional orthobiologic products;
- physician awareness of our products;
- our net losses;
- risk of product liability claims;
- the continued and future acceptance of our bone graft substitutes by the medical community and the public;
- acquisition or investment in new businesses, products or technologies;
- the FDA regulatory process;
- various governmental regulations related to the manufacturing of our products;
- healthcare regulatory reform;
- the Voting Group's control of us; and
- the other risks identified in this prospectus including, without limitation, those under the sections titled “Risk factors,” “Management’s discussion and analysis of financial condition and results of operations” and “Business.”

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Forward-looking statements are based on management's current expectations, estimates, forecasts and projections about our business and the industry in which we operate, and management's beliefs and assumptions are not guarantees of future performance or development and involve known and unknown risks, uncertainties and other factors that are in some cases beyond our control. As a result, any or all of our forward-looking statements in this prospectus may turn out to be inaccurate. Furthermore, if the forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified time frame, or at all. Factors that may cause actual results to differ materially from current expectations include, among other things, those described in the section entitled "Risk factors" and elsewhere in this prospectus. Potential investors are urged to consider these factors carefully in evaluating these forward-looking statements. These forward-looking statements speak only as of the date of this prospectus. Except as required by law, we assume no obligation to update or revise these forward-looking statements for any reason, even if new information becomes available in the future. You should, however, review the factors and risks and other information we describe in the reports we will file from time to time with the SEC after the date of this prospectus.

Use of proceeds

We estimate the net proceeds from this initial public offering of shares of Class A common stock will be approximately \$ million, or \$ million if the underwriters exercise their option to purchase additional shares in full, assuming an initial public offering price of \$ per share, the midpoint of the price range set forth on the cover page of this prospectus, and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

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

We intend to use the net proceeds to us from this offering to purchase newly-issued LLC Interests from Bioventus LLC at a purchase price per LLC Interest equal to the initial public offering price per share of Class A common stock less the underwriting discounts and commissions and estimated offering expenses payable thereon.

We intend to cause Bioventus LLC to use such proceeds (i) to repay all of the outstanding borrowings under our second lien term loan facility, (ii) to repay a \$23.5 million promissory note and a \$5.0 million deferred payment relating to the Acquisition when due in 2016 and (iii) with any remaining net proceeds used for general corporate purposes.

As of December 31, 2015, we had outstanding indebtedness of \$60.0 million under our second lien term loan, which matures on April 10, 2020. The interest rate on borrowings under the second lien term loan facility was 11.0% as of December 31, 2015.

We will use the net proceeds we receive pursuant to any exercise of the underwriters' option to purchase additional shares of Class A common stock to purchase additional LLC Interests from Bioventus LLC to maintain the one-to-one ratio between the number of shares of Class A common stock issued by us and the number of LLC Interests owned by us. We intend to cause Bioventus LLC to use any such proceeds it receives for general corporate purposes.

As of the date of this prospectus, since we cannot specify with certainty all of the particular uses for the net proceeds to be received upon the completion of this offering, our management will have broad discretion over the use of any net proceeds from this offering that are to be applied for general corporate purposes. Pending the use of the proceeds from this offering, we intend to invest the net proceeds in short-term, interest-bearing, investment grade securities, certificates of deposit or governmental securities.

Dividend policy

We currently intend to retain all available funds and any future earnings for use in the operation of our business, and therefore we do not currently expect to pay any cash dividends on our Class A common stock. Holders of our Class B common stock are not entitled to participate in any dividends declared by our board of directors. Any future determination to pay dividends to holders of Class A common stock will be at the discretion of our board of directors and will depend upon many factors, including our results of operations, financial condition, capital requirements, restrictions in Bioventus LLC's debt agreements and other factors that our board of directors deems relevant. We are a holding company, and substantially all of our operations are carried out by Bioventus LLC and its subsidiaries, and therefore we will only be able to pay dividends from funds we receive from Bioventus LLC. Under our credit agreement, Bioventus LLC is currently restricted from paying certain distributions, and we expect these restrictions to continue in the future, which may in turn limit our ability to pay dividends on our Class A common stock. Our ability to pay dividends may also be restricted by the terms of any future credit agreement or any future debt or preferred equity securities of us or our subsidiaries.

Transactions

Existing organization

Prior to the consummation of this offering and the organizational transactions described below, the Original LLC Owners are the only owners of Bioventus LLC. Bioventus LLC is treated as a partnership for U.S. federal income tax purposes and, as such, is not subject to any U.S. federal entity-level income taxes. Rather, taxable income or loss is included in the U.S. federal income tax returns of Bioventus LLC's members.

Bioventus Inc. was incorporated as a Delaware corporation on December 22, 2015 to serve as the issuer of the Class A common stock offered hereby.

Transactions

In connection with the closing of this offering we will consummate the following transactions, which we refer to as the "Transactions":

- we will amend and restate the Bioventus LLC Agreement, to, among other things, (i) provide for LLC Interests that will be the single class of common membership interests in Bioventus LLC, (ii) exchange all of the existing membership interests (including profit interests awarded under our MIP) in Bioventus LLC for LLC Interests and (iii) appoint Bioventus Inc. as the sole managing member of Bioventus LLC;
- we will amend and restate Bioventus Inc.'s certificate of incorporation to, among other things, (i) provide for Class A common stock and Class B common stock, each share of which entitles its holders to one vote per share on all matters presented to Bioventus Inc.'s stockholders and (ii) issue shares of Class B common stock to the Continuing LLC Owners, on a one-to-one basis with the number of LLC Interests they own;
- we will issue shares of our Class A common stock to the purchasers in this offering (or shares if the underwriters exercise in full their option to purchase additional shares of Class A common stock) in exchange for net proceeds of approximately \$ million (or approximately \$ million if the underwriters exercise in full their option to purchase additional shares of Class A common stock), assuming the shares are offered at \$ per share (the midpoint of the price range listed on the cover page of this prospectus), after deducting underwriting discounts and commissions but before offering expenses;
- we will use all of the net proceeds from this offering (including any net proceeds received upon exercise of the underwriters' option to purchase additional shares of Class A common stock) to acquire newly-issued LLC Interests from Bioventus LLC at a purchase price per interest equal to the initial public offering price of Class A common stock, less underwriting discounts and commissions, collectively representing % of Bioventus LLC's outstanding LLC Interests (or %, if the underwriters exercise in full their option to purchase additional shares of Class A common stock);
- Bioventus LLC will use the proceeds from the sale of LLC Interests as set forth under "Use of proceeds;"
- the Former LLC Owners will exchange their indirect ownership interests in Bioventus LLC for shares of Class A common stock on a one-to-one basis;
- the Phantom Plan will be terminated and the Phantom Plan Participants will receive the right to receive up to shares of Class A common stock upon settlement of their awards under the Phantom Plan, with such settlement expected to take place on the twelve month anniversary following the date of termination of the Phantom Plan as described in "Executive compensation — Narrative to summary compensation table — Equity-based compensation — Phantom profits interest units" (settlement may result in a change in the

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timing over which compensation expense is recognized as described in “Management’s discussion and analysis of financial condition and results of operations — Components of our results of operations — Selling, general and administrative expenses” and Bioventus will receive a corresponding number of LLC Interests from Bioventus LLC upon settlement);

- the Continuing LLC Owners will continue to own the LLC Interests they received in exchange for their existing membership interests in Bioventus LLC; and
- Bioventus will enter into (i) the Tax Receivable Agreement with the Continuing LLC Owners (ii) the Stockholders Agreement with the Voting Group and (iii) the Registration Rights Agreement with certain of the Original LLC Owners who, upon the consummation of this offering, will own shares of Bioventus’ Class B common stock (which will not have any liquidation or distribution rights), and certain of the Former LLC Owners.

Organizational structure following this offering

Immediately following the completion of the Transactions, including this offering:

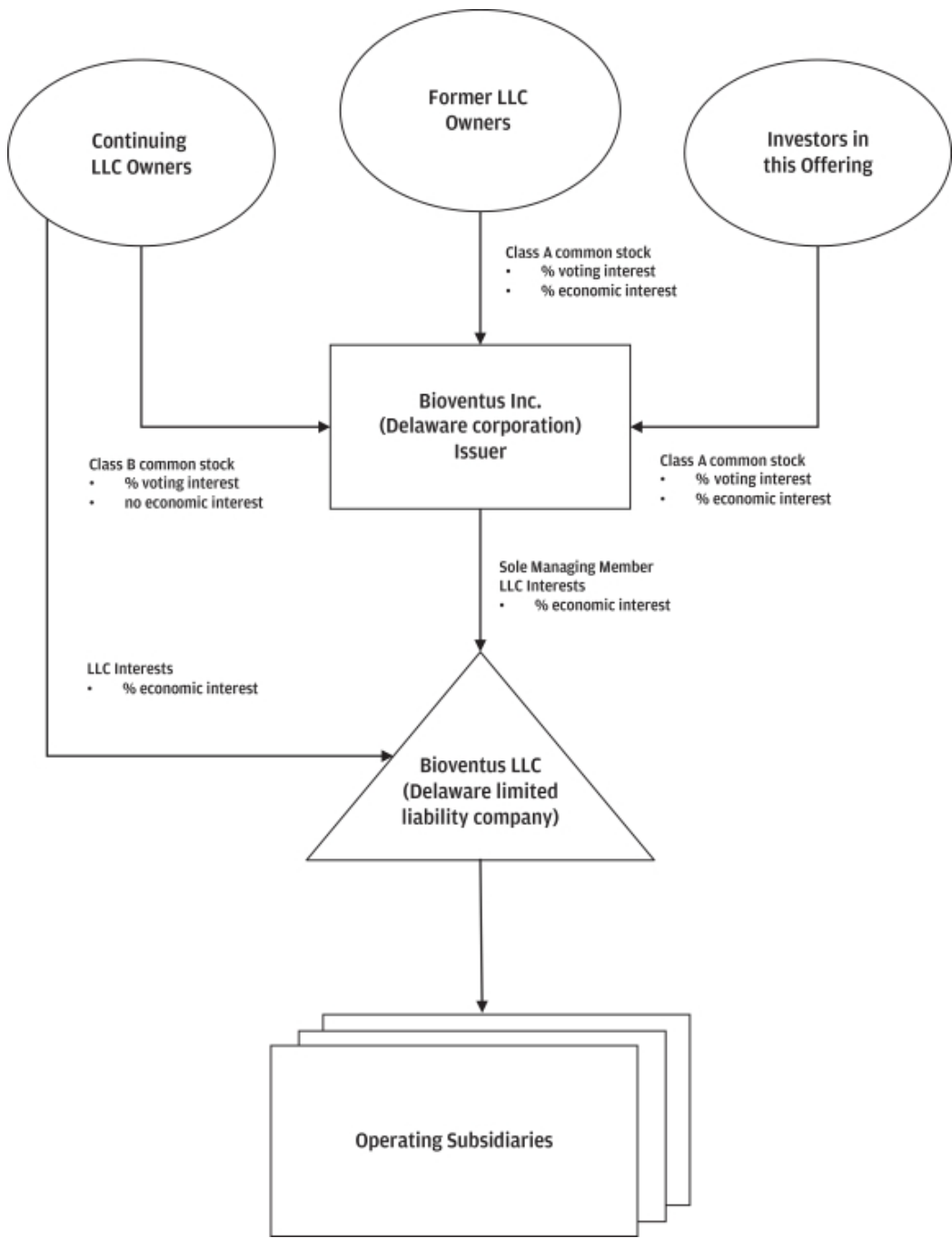
- Bioventus will be a holding company and the principal asset of Bioventus will be LLC Interests of Bioventus LLC;
- Bioventus will be the sole managing member of Bioventus LLC and will control the business and affairs of Bioventus LLC and its subsidiaries;
- our amended and restated certificate of incorporation and the Bioventus LLC Agreement will require that we and Bioventus LLC at all times maintain a one-to-one ratio between the number of shares of Class A common stock issued by us and the number of LLC Interests owned by us, as well as a one-to-one ratio between the number of shares of Class B common stock owned by the Continuing LLC Owners and the number of LLC Interests owned by the Continuing LLC Owners;
- Bioventus will own LLC Interests representing % of the economic interest in Bioventus LLC (or %, if the underwriters exercise in full their option to purchase additional shares of Class A common stock);
- the purchasers in this offering (i) will own shares of Class A common stock, representing approximately % of the combined voting power of all of Bioventus’ common stock (or approximately %, if the underwriters exercise in full their option to purchase additional shares of Class A common stock), (ii) will own % of the economic interest in Bioventus (or %, if the underwriters exercise in full their option to purchase additional shares of Class A common stock) and (iii) through Bioventus’ ownership of LLC Interests, indirectly will hold (applying the percentages in the preceding clause (ii) to Bioventus’ percentage economic interest in Bioventus LLC) approximately % of the economic interest in Bioventus LLC (or %, if the underwriters exercise in full their option to purchase additional shares of Class A common stock);
- the Former LLC Owners (i) will own shares of Class A common stock, representing approximately % of the combined voting power of all of Bioventus’ common stock (or approximately %, if the underwriters exercise in full their option to purchase additional shares of Class A common stock), (ii) will own % of the economic interest in Bioventus (or %, if the underwriters exercise in full their option to purchase additional shares of Class A common stock) and (iii) through Bioventus’ ownership of LLC Interests, indirectly will hold (applying the percentages in the preceding clause (ii) to Bioventus’ percentage economic interest in Bioventus LLC) approximately % of the economic interest in Bioventus LLC (or %, if the underwriters exercise in full their option to purchase additional shares of Class A common stock);
- the Continuing LLC Owners will own (i) LLC Interests, representing % of the economic interest in Bioventus LLC (or %, if the underwriters exercise in full their option to purchase additional shares of Class A common stock) and (ii) through their ownership of Class B common stock, approximately % of the voting power in

Bioventus (or approximately %, if the underwriters exercise in full their option to purchase additional shares of Class A common stock). Following the offering, each LLC Interest held by the Continuing LLC Owners will be redeemable, at the election of such members, for, at Bioventus' option, as determined by Bioventus' board of directors, newly-issued shares of Class A common stock on a one-for-one basis or a cash payment (if mutually agreed) equal to a volume weighted average market price of one share of Class A common stock for each LLC Interest redeemed (subject to customary adjustments, including for stock splits, stock dividends and reclassifications) in accordance with the terms of the Bioventus LLC Agreement. See "Certain relationships and related party transactions—Bioventus LLC Agreement;" and

- the Original LLC Owners collectively (i) will own Class A and Class B common stock representing approximately % of the combined voting power of all of Bioventus' common stock (or approximately %, if the underwriters exercise in full their option to purchase additional shares of Class A common stock) and (ii) will own % of the economic interest in Bioventus LLC (or %, if the underwriters exercise in full their option to purchase additional shares of Class A common stock), representing both a direct interest through the Continuing LLC Owners' ownership of LLC Interests and an indirect interest through the Former LLC Owners' ownership of Class A common stock.

Immediately following this offering, we will be a holding company and our principal asset will be the LLC Interests we purchase from Bioventus LLC and acquire from the Former LLC Owners. As the sole managing member of Bioventus LLC, we will operate and control all of the business and affairs of Bioventus LLC and, through Bioventus LLC and its subsidiaries, conduct our business. Accordingly, we will have the sole voting interest in, and control the management of, Bioventus LLC. As a result, we will consolidate Bioventus LLC in our consolidated financial statements and will report a non-controlling interest related to the LLC Interests held by the Continuing LLC Owners on our consolidated financial statements. Bioventus Inc. will have a board of directors and executive officers, but will have no employees. The functions of all of our employees are expected to reside at or under Bioventus LLC.

The following diagram shows our organizational structure after giving effect to the Transactions, including this offering, assuming no exercise by the underwriters of their option to purchase additional shares of Class A common stock:



Capitalization

The following table sets forth the cash and cash equivalents and capitalization as of December 31, 2015:

- of Bioventus LLC and its subsidiaries on an actual basis; and
- of Bioventus and its subsidiaries on a pro forma basis to give effect to the Transactions, including our issuance and sale of _____ shares of Class A common stock in this offering at an assumed initial public offering price of \$ _____ per share, the midpoint of the price range listed on the cover page of this prospectus, after (i) deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us and (ii) the application of the proceeds from the offering, each as described under “Use of proceeds.”

You should read this information together with the financial statements and related notes appearing elsewhere in this prospectus and the information set forth under the headings “Prospectus summary—Summary historical and pro forma financial data,” “Transactions,” “Use of proceeds,” “Selected financial data,” and “Management’s discussion and analysis of financial condition and results of operations”.

(in thousands, except share and per share data)	As of December 31, 2015	
	Bioventus LLC actual	Bioventus Inc. pro forma(1)
Cash and cash equivalents(2)	\$ 4,950	\$
Long-term indebtedness:		
2014 revolver(3)	8,000	
First lien term loan(3)	105,085	
Second lien term loan(3)	57,459	
Stockholders’ equity (deficit):		
Class A common stock, par value \$ _____ per share; no shares authorized, issued and outstanding, actual; _____ shares authorized, issued and outstanding, Bioventus Inc. pro forma		
Class B common stock, par value \$ _____ per share; no shares authorized, issued and outstanding, actual; _____ shares authorized, issued and outstanding, Bioventus Inc. pro forma		
Members’ equity	284,828	
Accumulated other comprehensive income (loss)	(650)	
Additional paid-in capital	0	
Accumulated deficit	(91,840)	
Total members’ equity, actual; stockholders’ equity, pro forma	192,338	
Total capitalization	\$	\$

- (1) A \$1.00 increase (decrease) in the assumed initial public offering price of \$ _____ per share, which is the midpoint of the price range listed on the cover page of this prospectus, would increase (decrease) the pro forma amount of each of cash and cash equivalents, additional paid-in capital, total stockholders’ equity and total capitalization by approximately \$ _____ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.
- (2) Excludes \$0.3 million of restricted cash.
- (3) For more information regarding the 2014 Revolver, first lien term loan and second lien term loan, see “Description of indebtedness.” As of December 31, 2015, we had \$32 million of availability under the 2014 revolver (after giving effect to \$0 of outstanding letters of credit).

Dilution

The Continuing LLC Owners will maintain their LLC Interests in Bioventus LLC after the Transactions. Because the Continuing LLC Owners do not own any Class A common stock or have any right to receive distributions from Bioventus, we have presented dilution in pro forma net tangible book value per share after this offering assuming that all of the holders of LLC Interests (other than Bioventus) had their LLC Interests redeemed or exchanged for newly-issued shares of Class A common stock on a one-for-one basis (rather than for cash), and the cancellation for no consideration of all of their shares of Class B common stock (which are not entitled to distributions from Bioventus), in order to more meaningfully present the dilutive impact on the investors in this offering. We refer to the assumed redemption or exchange of all LLC Interests for shares of Class A common stock as described in the previous sentence as the “Assumed Redemption.”

Dilution is the amount by which the offering price paid by the purchasers of the Class A common stock in this offering exceeds the pro forma net tangible book value per share of Class A common stock after the offering. Bioventus LLC’s net tangible book value as of December 31, 2015 was \$ million. Net tangible book value per share is determined at any date by subtracting our total liabilities from the total book value of our tangible assets and dividing the difference by the number of shares of Class A common stock deemed to be outstanding at that date.

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

Pro forma net tangible book value per share is determined at any date by subtracting our total liabilities from the total book value of our tangible assets and dividing the difference by the number of shares of Class A common stock, after giving effect to the Transactions, including this offering, and the Assumed Redemption. Our pro forma net tangible book value as of December 31, 2015 would have been approximately \$ million, or \$ per share of Class A common stock. This amount represents an immediate increase in pro forma net tangible book value of \$ per share to our existing stockholders and an immediate dilution in pro forma net tangible book value of approximately \$ per share to new investors purchasing shares of Class A common stock in this offering. We determine dilution by subtracting the pro forma net tangible book value per share after this offering from the amount of cash that a new investor paid for a share of Class A common stock. The following table illustrates this dilution:

Assumed initial public offering price per share	\$
Pro forma net tangible book value per share as of December 31, 2015 before this offering(1)	
Increase per share attributable to investors in this offering	
Pro forma net tangible book value per share after this offering	\$
Dilution per share to new Class A common stock investors	\$

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(1) The computation of pro forma net tangible book value per share as of December 31, 2015 before this offering is set forth below:

Numerator:	
Book value of tangible assets	\$
Less: total liabilities	
Pro forma net tangible book value(a)	\$
Denominator:	
Shares of Class A common stock outstanding immediately prior to this offering and after Assumed Redemption	
Total	\$
Pro forma net tangible book value per share	\$

(a) Gives pro forma effect to the Transactions (other than this offering) and the Assumed Redemption.

If the underwriters exercise their option to purchase additional shares of our Class A common stock in full in this offering, the pro forma net tangible book value after the offering would be \$ per share, the increase in pro forma net tangible book value per share to existing stockholders would be \$ and the dilution per share to new investors would be \$ per share, in each case assuming an initial public offering price of \$ per share, which is the midpoint of the price range listed on the cover page of this prospectus.

The following table summarizes, as of December 31, 2015 after giving effect to this offering, the Transactions and the Acquisition the differences between the Original LLC Owners and new investors in this offering with regard to:

- the number of shares of Class A common stock purchased from us by investors in this offering and the number of shares issued to the Original LLC Owners after giving effect to the Assumed Redemption,
- the total consideration paid to us in cash by investors purchasing shares of Class A common stock in this offering and by the Original LLC Owners, and
- the average price per share of Class A common stock that such Original LLC Owners and new investors paid.

The calculation below is based on an assumed initial public offering price of \$ per share, which is the midpoint of the price range listed on the cover page of this prospectus, before deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

	Shares purchased		Total consideration		Average price per share
	Number	Percent	Amount	Percent	
Original LLC Owners		%	\$	%	\$
New investors					
Total		100%	\$	100%	\$

Except as otherwise indicated, the discussion and the tables above assume no exercise of the underwriters' option to purchase additional shares of Class A common stock. The number of shares of our Class A common stock outstanding after this offering as shown in the tables above is based on the number of shares outstanding as of December 31, 2015, after giving effect to the Transactions and the Assumed Redemption, and excludes:

- shares of Class A common stock reserved for future issuance under our 2016 Incentive Award Plan (as described in "Executive compensation—New incentive plans"), consisting of (i) and (ii) additional shares of Class A common stock reserved for future issuance; and
- shares of Class A common stock expected to be available for future issuance to the Phantom Plan Participants upon settlement of their awards as described in "Executive compensation—Narrative to summary compensation table—Elements of compensation—Equity-based compensation—Phantom profits interests units." To the extent any of these outstanding options are exercised, there will be further dilution to new investors. To the extent all of such outstanding options had been exercised as of December 31, 2015 the pro forma net tangible book value per share after this offering would be \$, and total dilution per share to new investors would be \$.

- If the underwriters exercise their option to purchase additional shares of Class A common stock in full:
- the percentage of shares of Class A common stock held by Original LLC Owners will decrease to approximately % of the total number of shares of our Class A common stock outstanding after this offering; and
 - the number of shares held by new investors will increase to , or approximately % of the total number of shares of our Class A common stock outstanding after this offering.

Unaudited pro forma consolidated financial information

The following statements set forth unaudited pro forma condensed consolidated financial data for Bioventus Inc. as of December 31, 2015 and for the year ended December 31, 2015. The unaudited pro forma condensed consolidated balance sheet as of December 31, 2015 gives effect to the Transactions as if they had occurred on that date. The unaudited pro forma condensed consolidated statements of operations for the fiscal year ended December 31, 2015 have been prepared to illustrate the effects of the Acquisition and the Transactions as if they occurred on January 1, 2015. The unaudited pro forma condensed consolidated financial statements have been developed by applying pro forma adjustments to the historical audited consolidated financial statements of Bioventus LLC included elsewhere in this prospectus. Assumptions underlying the pro forma adjustments are described in the accompanying notes, which should be read in conjunction with these unaudited pro forma condensed consolidated financial statements.

Bioventus Inc. was incorporated on December 22, 2015 and has no business transactions, activities, assets or liabilities to date, and therefore its historical financial information is not shown in a separate column in the unaudited pro forma consolidated balance sheet and unaudited pro forma consolidated statement of operations.

The pro forma adjustments related to the Acquisition, which we refer to as Acquisition Adjustments, are described in the notes to the unaudited pro forma consolidated financial information and include those related to the acquisition of BioStructures, LLC on November 24, 2015.

The pro forma adjustments related to the Transactions other than this offering, which we refer to as Reorganization Adjustments, are described in the notes to the unaudited pro forma consolidated financial information, and principally include those transactions as listed within the “Transactions” section of this prospectus.

The pro forma adjustments related to this offering, which we refer to as the Offering Adjustments, are described in the notes to the unaudited pro forma consolidated financial information, and principally include those items listed within “The offering” and “Use of proceeds” sections of this prospectus.

Except as otherwise indicated, the unaudited pro forma consolidated financial information presented assumes no exercise by the underwriters of their option to purchase additional shares of Class A common stock from us.

The pro forma adjustments are based upon available information and methodologies that are factually supportable and directly related to the Acquisition and the Transactions and are presented for illustrative purposes only. The unaudited pro forma consolidated financial information includes various estimates which are subject to material change and may not be indicative of what our operations or financial position would have been had the Acquisition and the Transactions, including this offering, taken place on the dates indicated, or that may be expected to occur in the future.

The pro forma financial information should be read in conjunction with, “Risk factors,” “Summary historical and unaudited pro forma consolidated financial and other data,” “Management’s discussion and analysis of financial condition and results of operations” and the historical consolidated financial statements and related notes included elsewhere in this prospectus.

Unaudited pro forma consolidated financial information

Bioventus Inc.

Unaudited pro forma consolidated balance sheet

As of December 31, 2015

(Dollar amounts in thousands)

	Bioventus LLC historical	Reorganization adjustments (note 2)	Offering adjustments (note 3)	Bioventus Inc. pro forma
Assets				
Current assets:				
Cash and cash equivalents	\$ 4,950	\$ 0	\$ 0	3c \$
Restricted cash	343			
Accounts receivable, net	54,511	—	—	
Inventories, net	35,178	—	—	
Prepaid expenses and other current assets	4,445	—	—	
Total current assets	99,427	—	—	
Property and equipment, net	9,602	—	—	\$
Goodwill	58,694	—	—	
Intangibles assets, net	319,152			\$
Other assets	393	—	—	
Deferred tax asset	84	—	—	\$
Total assets	\$487,352	\$ 0	\$ 0	\$
Liabilities and members'/stockholders' equity				
Current liabilities:				
Accounts payable	\$ 8,368	\$ 0	\$ 0	\$
Accrued liabilities	34,368	—	—	
Note payable	23,546	—	—	
Current portion of contingent consideration	7,270	—	—	\$
Current portion of long-term debt	12,938	—	—	3c \$
Current portion of capital lease obligations	1,200	—	—	\$
Total current liabilities	87,690	—	—	
Note payable to related party pursuant to tax agreement	—	—	2a	—
Long-term debt, less current portion	149,607	—	—	3c
Long-term revolver	8,000	—	—	\$
Contingent consideration, less current portion	32,635	—	—	3c \$
Capital lease obligations, less current portion	1,222	—	—	
Other long-term liabilities	7,080	—	—	\$
Deferred tax liability	8,780	—	—	
Total liabilities	295,014	—	—	
Class A Common Stock	—		2b	3b
Class B Common Stock	—		2b	3b
Membership equity	284,828	—	2b	3a
Additional paid in capital	—			
Accumulated other comprehensive income (loss)	(650)	—	—	
Accumulated (deficit) income	(91,840)	—	—	
Total members'/stockholders' equity	192,338	—	—	
Total non-controlling interest	—			
Total liabilities and equity	\$487,352	\$ 0	\$ 0	\$

See Notes to the Unaudited Pro Forma Consolidated Financial Information.

Bioventus Inc.

Unaudited pro forma consolidated statement of operations

For the year ended December 31, 2015

(Dollar amounts in thousands, except per share amounts)

	Bioventus LLC historical	Historical BioStructures LLC from January 1, 2015 through November 24, 2015	Acquisition adjustments (note 1)	Combined pro forma	Reorganization adjustments (note 2)	Offering adjustments (note 3)	Bioventus Inc. pro forma
Net sales	\$ 253,650	\$ 12,174	\$ 0	\$ 265,824	\$ 0	\$ 0	\$
Cost of sales (including depreciation and amortization for 2015)	74,342	2,595	3,459 ^{1a}	80,396	—	—	
Gross profit	179,308	9,579	(3,459)	185,428	—	—	
Selling, general and administrative expenses	148,441	6,188	(525) ^{1b}	154,104	—	—	
Research and development expenses	14,747	238	—	14,985	—	—	
Change in fair value of contingent consideration	19,493	—	—	19,493	—	—	
Restructuring costs	2,645	—	—	2,645	—	—	
Depreciation and amortization	10,570	37	1,517 ^{1a}	12,124	—	—	
Operating income (loss)	(16,588)	3,116	(4,451)	(17,923)	—	—	
Interest expense	14,229	14	—	14,243	—	—	
Other (income) expense	1,154	(34)	—	1,120	—	—	
Other expense, net	15,383	(20)	—	15,363	—	—	
Loss (income) before income taxes	(31,971)	3,136	(4,451)	(33,286)	—	—	
Income tax expense	2,140	—	—	2,140	—	2d	
Net (loss) income	(34,111)	3,136	(4,451)	(35,426)	—	—	
Less: Net (loss) income attributable to non-controlling interests	—	—	—	—	—	2c	
Net (loss) income attributable to Bioventus	(34,111)	3,136	(4,451)	(35,426)	—	—	
Defined benefit plan adjustments	48	—	—	48	—	—	
Foreign currency translation adjustments	(712)	—	—	(712)	—	—	
Comprehensive (loss) income	\$ (34,775)	\$ 3,136	\$ (4,451)	\$ (36,090)	\$ —	\$ —	\$
Pro forma net (loss) income per share attributable to Bioventus:							
Basic						3d	
Diluted						3d	
Pro forma weighted average common shares outstanding:							
Basic						3d	
Diluted						3d	

See Notes to the Unaudited Pro Forma Consolidated Financial Information.

Notes to unaudited pro forma consolidated financial information

(Dollar amounts in thousands)

1. BioStructures acquisition adjustments

On November 24, 2015, Bioventus LLC acquired 100% of the membership interests of BioStructures, LLC, a medical device company focused on developing innovative propriety platforms in bio-resorbable bone graft products for a broad range of spinal surgical applications. The Acquisition has been accounted for using the acquisition method of accounting in accordance with ASC 805, Business Combinations, which requires, among other things, that the assets acquired and liabilities assumed be recognized at their acquisition date fair values, with any excess of the consideration transferred over the estimated fair values of the identifiable net assets acquired recorded as goodwill. The purchase price consisted of cash paid to shareholders on the closing date, a \$23,528 note payable to the former BioStructures owners, a \$4,960 deferred payment and contingent consideration of up to \$4,542 to be paid upon the receipt of certain premarket notification 510(k) clearances with the FDA.

The accounting for the Acquisition is preliminary and subject to change. The final accounting for the business combination may differ materially from that presented in these unaudited pro forma consolidated financial statements. As the valuation work is being completed, any increases or decreases in the fair value of relevant statement of financial position amounts will result in adjustments to the balance sheet and/or statements of operations until the accounting for the business combination is finalized.

- (a) *Intangible assets and amortization expense*—Adjustment to intangibles reflects the preliminary fair market value related to the change in fair value of identifiable intangible assets acquired in the transaction. The preliminary fair market value was determined using an income approach.

The preliminary amounts assigned to identifiable intangible assets and the related amortization expense is as follows (dollar amounts in thousands):

Intangible asset	Estimated useful life (years)	Preliminary fair value	Amortization expense for the year ended December 31, 2015(ii)
Intellectual property	13	45,800	3,523
Distributor relationships	3	4,500	1,517
IPR&D		23,000	—
Trade name		50	
Total		73,350	5,040
Less: BioStructures historical amounts(i)			(64)
Pro forma adjustment		\$	\$ 4,976

(i) BioStructures historical amortization expenses were recorded within cost of sales in the historical financial statements.

(ii) The pro forma adjustment for amortization for the year ended December 31, 2015 includes an increase of \$3,459 recorded in cost of sales and an increase of \$1,517 recorded in depreciation and amortization.

The fair value of the acquired IPR&D will be an indefinite-lived intangible asset. Once the associated product is available for sale, the asset is amortized over its remaining estimated useful life.

The estimated fair value of amortizable intangible assets is expected to be amortized on a straight-line basis over the estimated useful lives. The amortizable lives reflect the periods over which the assets are expected to provide economic benefit. With other assumptions held constant, a 10% change in the fair

value adjustment for amortizable intangible assets would increase annual pro forma amortization by approximately \$504. In addition, with other assumptions held constant, a one year increase in the estimated useful lives would decrease annual amortization expense by approximately \$631 and a one year decrease in the estimated useful lives would increase amortization expense by approximately \$1,052.

- (b) *Selling, general and administrative expenses*—Adjustment reflects the removal of transaction expenses incurred in relation to the Acquisition. These expenses are directly attributable to the Acquisition and are not expected to have a continuing impact on Bioventus Inc. and therefore have been removed for the purposes of the pro forma consolidated statement of operations.

2. Reorganization adjustments

The following adjustments are related to the reorganization of the Company as described in the section entitled “Transactions”.

- (a) As described in greater detail under “Certain relationships and related party transactions—Tax Receivable Agreement,” in connection with the closing of this offering, we will enter into the Tax Receivable Agreement with the Continuing LLC Owners that will provide for the payment by Bioventus to the Continuing LLC Owners of 85% of the amount of tax benefits, if any, that Bioventus actually realizes as a result of (i) increases in the tax basis of assets of Bioventus LLC resulting from any redemptions or exchanges of LLC Interests as described under “Certain relationships and related party transactions— Bioventus LLC agreement—LLC interest redemption right” and (ii) certain other tax benefits related to our making payments under the Tax Receivable Agreement. Additionally, we generally will retain the benefit of the remaining 15% of the applicable tax savings.

We anticipate that we will account for the income tax effects resulting from future taxable purchases by us or redemptions into Class A shares by the Continuing LLC Owners by recognizing an increase in our deferred tax assets, based on enacted tax rates at the date of each such purchase or redemption. Further, we will evaluate the likelihood that we will realize the benefit represented by the deferred tax asset, and, to the extent that we estimate that it is more likely than not that we will not realize the benefit, we will reduce the carrying amount of the deferred tax asset with a valuation allowance.

- (b) As a C-corporation, we will no longer record a members’ equity in the consolidated balance sheet. To reflect the C-corporation structure of our equity, we will separately present the value of our Class A common stock, additional paid-in capital and accumulated deficit. This adjustment represents the issuance of _____ shares of Class A common stock with a par value of \$0.001 per share with the remaining contribution of \$ _____ recorded in additional paid in capital.
- (c) As described in “Transactions”, Bioventus Inc. will become the sole managing member of, own the sole voting interest in, and control the management of Bioventus LLC. As a result, we will consolidate the financial results of Bioventus LLC and will report a non-controlling interest related to the LLC Interest held by the Continuing LLC Owners on our consolidated balance sheet.

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The computation of the non-controlling interest following the consummation of this offering is as follows:

	Units	Percentage
LLC Interests in Bioventus LLC held by Bioventus Inc.	%	%
Non-controlling interest in Bioventus LLC held by Continuing LLC Owners	%	%
	%	%

If the underwriters were to exercise their option to purchase additional shares of our Class A common stock, Bioventus Inc. would own % of the economic interest of Bioventus LLC and the Continuing LLC Owners would own the remaining % of the economic interest of Bioventus LLC.

In connection with the Transactions, Class B common stock and LLC Interests will be issued to Continuing LLC Owners and their ownership will be presented as non-controlling interest in Bioventus Inc.'s consolidated financial statements. We will contribute all of the net proceeds of this offering (after deducting underwriting commissions and discounts and certain offering expenses) to Bioventus LLC in exchange for LLC Interests equal in number to the shares of Class A common stock issued, representing a controlling interest.

The balance of the non-controlling interest and total member's equity as of December 31, 2015 on a pro forma basis were calculated as follows (in thousands of dollars):

Historical Bioventus LLC equity	\$
Net proceeds from this offering	
Total members' equity of Bioventus LLC after the Transactions	
Total Continuing LLC Owners ownership percentage in Bioventus LLC after the Transactions	%
Non-controlling interest as of December 31, 2015 on a pro forma basis	
Stockholders' equity attributable to Class A common stock on a pro forma basis	
Total stockholders' equity at December 31, 2015 on a pro forma basis	\$

The Continuing LLC Owners, from time to time following the offering, may require Bioventus LLC to redeem or exchange all or a portion of their LLC Interests for newly-issued shares of Class A common stock on a one-for-one basis or, if Bioventus and such members agree, a cash payment equal to the volume weighted average market price of one share of our Class A common stock for each LLC Interest redeemed in accordance with the terms of the Bioventus LLC Agreement; provided that, at Bioventus' election, Bioventus may effect a direct exchange of such Class A common stock or such cash (if mutually agreed) for such LLC Interests. See "Certain relationships and related party transactions—Bioventus LLC Agreement."

The pro forma net (loss) attributable to non-controlling interest is computed as follows (dollar amounts in thousands):

	Reorganization	Offering
Year ended December 31, 2015		
Net (loss) income		
Non-controlling interests ownership percentage		
Net (loss) income attributable to non-controlling interests		
Net (loss) income attributable to Bioventus Inc.		

- (d) Bioventus LLC has been, and following the Transactions will continue to be, treated as a partnership for U.S. federal income tax purposes and, as such, is not subject to any U.S. federal entity-level income taxes. Rather, taxable income or loss is included in the U.S. federal income tax returns of Bioventus LLC's members, including Bioventus, Inc. Bioventus Inc. will be subject to U.S. federal income taxes, in addition to state, local and foreign income taxes with respect to our allocable share of any taxable income of Bioventus LLC. As a result, the unaudited pro forma consolidated statement of operations reflect adjustments to our income tax expense to reflect an effective income tax rate of % for the fiscal year ended December 31, 2015, which was calculated assuming the U.S. federal rates currently in effect and the highest statutory rates apportioned to each applicable state, local and foreign jurisdiction.

Our net tax losses of \$ and \$ for the year ended December 31, 2015 would have generated unaudited pro forma deferred income tax benefits of \$ and \$, respectively, assuming a combined federal and state statutory income tax rate of %.

3. Offering related adjustments

- (a) We have been deferring certain costs in our historical financial statements directly associated with this offering, including certain legal, accounting and other related expenses, which have been recorded in other assets on our consolidated balance sheet. Some of these costs directly associated with this offering were incurred during our fiscal year ended December 31, 2015 and others were incurred subsequent to December 31, 2015. Upon completion of this offering, approximately \$ of deferred costs will be reversed out of other assets and charged against the proceeds from this offering as a reduction to additional paid-in capital. The total amount of estimated offering expenses is \$.
- (b) We estimate that the net proceeds from this offering, after deducting underwriting discounts and commissions but before estimated offering expenses, will be approximately \$, based on an assumed initial public offering price of \$ per share, the midpoint of the price range set forth on the cover page of this prospectus. If the underwriters exercise their option to purchase additional shares in full, we estimate that the net proceeds will be approximately \$ after deducting underwriting discounts and commissions but before estimated offering expenses.

Assumed initial public offering price per share	\$
Shares of Class A common stock issued in this offering	
Gross proceeds	\$
Less: underwriting discounts and commissions	
Less: offering expenses (including amounts previously deferred)	
Net cash proceeds	\$

- (c) We intend to use the proceeds from this offering to purchase newly issued LLC interests from Bioventus LLC at a purchase price per interest equal to the initial public offering price per share of Class A common stock less underwriting discounts and commissions and estimated offering expenses payable thereon. We intend to cause Bioventus LLC to use such proceeds (i) to repay all of the outstanding borrowings under our second lien term loan facility, (ii) to repay a \$23.5 million promissory note and a \$5.0 million deferred payment relating to the Acquisition when due in 2016 and (iii) with any remaining net proceeds used for general corporate purposes.
- (d) Pro forma basic net income (loss) per share is calculated by dividing net income (loss) attributable to common stockholders by the number of weighted average Class A common stock outstanding.

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Net loss per share, basic and diluted:	
Numerator	
Net loss	
Less: Net loss attributable to non-controlling interests	
Net loss attributable to Class A common stockholders	
Denominator	
Shares of Class A common stock issued in this offering	
Shares of Class A common stock held by the Former LLC Owners	
Shares of Class A common stock held by the Phantom Plan Participants	
Weighted-average shares of Class A common stock	
Net loss per share, basic and diluted	\$

In computing the dilutive effect, if any, that the aforementioned exchange would have on earnings per share, we considered that the net income available to holders of Class A common stock would increase due to elimination of the non-controlling interest in consolidated entities associated with the Class B common stock held (including any tax impact).

Selected financial data

The following table presents the selected financial data for Bioventus LLC and its subsidiaries for the periods and at the dates indicated. Bioventus LLC is the predecessor of the issuer, Bioventus Inc., for financial reporting purposes. The selected statements of operations data for the years ended December 31, 2013, 2014 and 2015 and the selected balance sheet data as of December 31, 2014 and 2015 are derived from the Bioventus LLC audited financial statements appearing elsewhere in this prospectus. You should read this data together with our audited financial statements and related notes appearing elsewhere in this prospectus and the information under the captions "Capitalization" and "Management's discussion and analysis of financial condition and results of operations." Our historical results are not necessarily indicative of our future results or any other period. The selected financial data included in this section are not intended to replace the financial statements and the related notes included elsewhere in this prospectus.

We have elected to present three years of selected financial data as permitted under the reduced disclosure requirements available to emerging growth companies.

(in thousands, except per share and share amounts)	Years ended December 31,		
	2013	2014	2015
Net sales	\$ 232,375	\$242,893	\$253,650
Cost of sales (including depreciation and amortization of \$16,693, \$19,622 and \$22,474, respectively)	71,372	74,609	74,342
Gross profit	161,003	168,284	179,308
Selling, general and administrative expense	150,370	147,058	148,441
Research and development expenses	10,936	9,465	14,747
Change in fair value of contingent consideration	—	1,590	19,493
Restructuring costs	—	1,183	2,645
Depreciation and amortization	7,765	8,968	10,570
Operating income (loss)	(8,068)	20	(16,588)
Interest expense	11,459	11,969	14,229
Other (income) expense	713	(596)	1,154
Other expense, net	12,172	11,373	15,383
Loss before income taxes	(20,240)	(11,353)	(31,971)
Income tax expense	2,127	1,547	2,140
Net loss	\$ (22,367)	\$ (12,900)	(34,111)
Net loss per unit, basic and diluted	\$ (5.30)	\$ (3.39)	\$ (7.78)
Weighted average common units outstanding, basic and diluted	4,900	4,900	4,900
Unaudited pro forma net loss per share:			
Net loss per share, basic and diluted			\$
Weighted average shares, basic and diluted			

(in thousands)	Years ended		
	December 31, 2013	December 31, 2014	December 31, 2015
Consolidated statement of cash flow data:			
Net cash (used in) provided by:			
Operating activities	\$ 2,749	\$ 15,109	\$ 18,920
Investing activities	(10,999)	(31,376)	(60,185)
Financing activities	6,801	(6,645)	31,246
Effect of exchange rate changes on cash and cash equivalents	(514)	(1,428)	(805)
Net (decrease) increase in cash and cash equivalents	\$ (1,963)	\$ (24,340)	\$ (10,824)
Balance sheet data:			
Cash and cash equivalents	\$ 15,774	\$ 4,950	
Total assets	430,421	487,352	
Total liabilities	252,932	295,014	
Accumulated deficit	(56,495)	(91,840)	
Total members' equity	177,489	192,338	

Management's discussion and analysis of financial condition and results of operations

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with "Risk factors," "Selected financial data" and our consolidated financial statements and the related notes to those statements included elsewhere in this prospectus. In addition to historical consolidated financial information, the following discussion and analysis contains forward-looking statements that involve risks, uncertainties and assumptions. Some of the numbers included herein have been rounded for the convenience of presentation. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of many factors, including those discussed under "Risk factors" and elsewhere in this prospectus. The following discussion does not give effect to the Transactions. See "Transactions" and "Unaudited pro forma condensed consolidated financial information" included elsewhere in this prospectus for a description of the Transactions and their effect on our historical results of operations.

Overview

We are a global medical technology company focused on developing and commercializing innovative and proprietary orthobiologic products for the treatment of patients suffering from a broad array of musculoskeletal conditions. Our products address the growing need for clinically effective, cost efficient and minimally invasive solutions that enhance the body's natural healing processes. For the year ended December 31, 2015, we generated \$253.7 million of net sales. We operate our business through four reportable segments: Active Healing Therapies—U.S., Active Healing Therapies—International, Surgical and BMP.

Our Active Healing Therapies segments offer two types of non-surgical products: our market-leading, non-invasive Exogen system for long bone stimulation for fracture healing and hyaluronic acid, or HA, viscosupplementation therapies for osteoarthritis pain relief. Our Exogen system is a premarket approved, or PMA, product that offers significant advantages over competitors' long bone stimulation systems, including ease of use, superior clinical efficacy and a broader label that is the only label for a long bone growth stimulator for certain fresh fractures. Our two PMA approved HA viscosupplementation therapies are: Supartz FX, a five injection therapy, which we market in the United States, and GelSyn-3, a three injection therapy, which we expect to launch in the United States in the second half of 2016. We also market Durolane, a single injection therapy, outside the United States and own certain related assets.

Our Surgical segment offers a broad portfolio of advanced bone graft substitutes in the United States designed to improve bone fusion rates following spinal fusion and other orthopedic surgeries. These products include our OsteoAMP allogeneic growth factor, a range of bioactive synthetics, a collagen ceramic matrix, a demineralized bone matrix, or DBM, and allograft comprising demineralized cancellous bone in different preparations. Our development pipeline includes additional bone graft substitute products.

Our BMP segment is comprised of proprietary next-generation bone morphogenetic protein, or BMP. Our next-generation BMP product candidates are designed to offer at least equivalent efficacy at a lower dose administration and provide a better-controlled release to address the safety concerns associated with Infuse, the current market-leading bone graft. We intend to enter one of our next-generation BMP candidates into Phase 1 clinical trials within 18 months and expect to demonstrate advancement of our product candidates through a number of milestones over the next two years.

We currently market and sell our products in the United States and 29 other countries. As of December 31, 2015, our sales organization consisted of approximately 234 direct sales representatives and 135 independent distributors in the United States and approximately 70 direct sales representatives and ten independent distributors internationally. In the United States, our Active Healing Therapies sales organization markets our products to orthopedists, musculoskeletal and sports medicine physicians and podiatrists. Our Surgical sales

organization is composed of a sales management team that markets our surgical products primarily to neurosurgeons and orthopedic spine surgeons. In international markets, we market and sell our Active Healing Therapies through direct sales representatives in twelve countries and through independent distributors in an additional 17 countries. We have grown our total net sales from \$232.4 million for the year ended December 31, 2013, to \$242.9 million for the year ended December 31, 2014 and to \$253.7 million for the year ended December 31, 2015, at a CAGR, of 4.5%. We have grown our Adjusted EBITDA from \$33.1 million for the year ended December 31, 2013, to \$42.9 million for the year ended December 31, 2014 and to \$53.5 million for the year ended December 31, 2015 at a CAGR of 27.0%. For a reconciliation of net loss to Adjusted EBITDA, see Note 3 to the information contained in “Prospectus summary—Summary historical and pro forma financial information.”

In addition to marketing and selling our existing products, we are engaged in ongoing R&D efforts. Our R&D efforts are focused on our next-generation BMP product candidates as well as bone graft substitutes, including several programs that we recently acquired through our BioStructures acquisition.

Strategic transactions

Since our inception in May 2012, we have engaged in a series of acquisitions and other strategic transactions to grow the business and broaden our product portfolio. Below is a summary of these transactions.

BMP portfolio. On June 27, 2013, we entered into an agreement with Pfizer for an exclusive, worldwide license to certain parts of Pfizer’s BMP IP portfolio, subject to certain field of use and other restrictions. As part of the license agreement, Pfizer transferred to us certain existing development work for their BMP assets and agreed to undertake certain early-development activities relating to the next-generation BMP product candidates. Pfizer has also agreed to assign to us, upon the first commercial sale of a product containing next-generation BMP, certain IP rights relating to next-generation BMP, though we will continue to license certain material background IP from Pfizer under the agreement. Under the terms of the license agreement, we paid Pfizer an upfront cash payment, which was recorded as an R&D expenses in 2013. Additionally, we will be obligated to make cash payments upon the achievement of certain milestones, as well as royalty payments to Pfizer on sales upon commercialization of any product covered by the license. Over the next several years, we expect to increase our R&D expenses for our next-generation BMP product candidates as we undergo clinical trials to demonstrate the safety and efficacy of the product.

Durolane. On December 31, 2013, we entered into an agreement with Galderma S.A. and Q-Med AB to acquire the exclusive distribution rights to Durolane outside the United States. Under the terms of the agreement, we made payments to Galderma S.A. and Q-Med AB of \$19.7 million in 2014 and \$5.3 million in 2015, including implicit interest. The agreement included an option for us to acquire certain Durolane assets outside the United States, including the Durolane trademark and product registrations and clinical data. We exercised this option on November 16, 2015. Prior to exercising this option, we served as the exclusive distributor of Durolane in Europe, Canada and Australia. As a result of this acquisition, our Durolane cost of sales have decreased significantly, resulting in a higher gross margin for the product.

OsteoAMP. On October 3, 2014, we entered the surgical orthobiologics market with the asset acquisition of the OsteoAMP product line, intellectual property and commercial business from Advanced Biologics for a purchase price of approximately \$17.7 million in upfront cash (\$10.5 million of which was paid upon closing with the remainder paid in February 2015), plus contingent consideration. The contingent consideration consists of (i) up to \$12.0 million for cash earn-out payments upon the achievement of certain net sales targets through December 31, 2019, (ii) a royalty on certain future net sales of OsteoAMP beginning January 1, 2019 and ending December 31, 2023, and (iii) the payment of above-market rate prices for tissue used for the OsteoAMP product pursuant to a supply agreement with Advanced Biologics ending in October 2018. Based on management

assumptions for market rates and future contract revenues, the estimated fair value of the contingent cash consideration payable under the supply agreement is \$20.8 million as of December 31, 2015. We will recognize any subsequent changes in the fair value of the contingent consideration in our consolidated statements of operations in the period of the change.

BioStructures. On November 24, 2015, we acquired BioStructures, a developer and marketer of a proprietary range of advanced bioactive synthetics and other bone graft substitutes for various spinal and orthopedic surgical applications, as well as a pipeline of bone graft substitute products. The purchase price was \$81.4 million, including \$48.4 million paid in cash at closing, a \$23.5 million note payable to the former BioStructures owners and a deferred payment of \$5.0 million, both due on the twelve-month anniversary of the acquisition, and contingent consideration of \$4.5 million based on the achievement of certain regulatory milestones. We expect sales from these acquired bone graft substitutes to increase in the next several years as we grow our Surgical business.

GelSyn-3. On February 9, 2016, we entered into an agreement with IBSA where we obtained the exclusive distribution rights for GelSyn-3 in the United States, as well as an assignment of the GelSyn-3 trademark. Under the agreement, IBSA will supply GelSyn-3 on a purchase order basis, based on the amounts of GelSyn-3 that we require as set forth in rolling forecasts. We will also be subject to certain annual minimum purchase requirements. We are obligated to use commercially reasonable efforts to launch GelSyn-3 and to diligently market GelSyn-3 in the United States.

Certain of the foregoing transactions have had a significant impact on our consolidated financial statements for the periods in which they occurred and they have affected the comparability of these statements for the corresponding comparative periods.

Outlook

We plan to continue to expand our business, increase our net sales and achieve profitability by executing on the following strategies:

- Grow our Surgical business by investing in our portfolio and expanding our distribution network.
- Advance our next-generation BMP product candidates.
- Grow our Active Healing Therapies business through new product introductions and selling strategies.
- Selectively pursue business development opportunities.
- Focus on continued Adjusted EBITDA growth.

We expect our Surgical business to be a significant contribution to our growth going forward as we continue to grow our OsteoAMP product at a faster rate than the rest of our business, as well as leverage our recent BioStructures acquisition.

We expect to face challenges as we execute on our business strategy. Our industry is highly competitive, subject to rapid change and significantly affected by market activities of industry participants, new product introductions and other technological advancements. We believe our experienced management team positions us for success in facing these and other challenges. However, there are a number of factors affecting our business that are beyond our control. For example, we expect that market demand, government regulation, third-party coverage and reimbursement policies and societal pressures will continue to change the healthcare industry worldwide, resulting in further business consolidations and alliances among our customers, which may exert further downward pressure on the prices of our products. For information about additional factors that may affect our outlook, see the “Risk factors” section of this prospectus.

Components of our results of operations

Net sales

We generate net sales from a broad portfolio of orthobiologic products that meet the needs of our orthopedist, musculoskeletal and sports medicine physician, podiatrist, neurosurgeon and orthopedic spine surgeon customers and their patients. We operate our business through four operating and reportable segments, Active Healing Therapies — U.S., Active Healing Therapies — International, Surgical and BMP. Within our Active Healing Therapies segment in the United States and certain international markets, we sell our products through direct sales representatives who manage and maintain the sales relationship with physician practices. In certain international markets, we also sell our Active Healing Therapies to independent distributors on pre-arranged business terms, who manage or maintain the sales relationship with their physician customers. See Note 15 to our consolidated financial statements for the years ended December 31, 2015, 2014 and 2013. We recognize revenue when these products are shipped to the independent stocking distributors and transfer of title to the goods and the risk of loss related to those goods are transferred. Within our Surgical segment in the United States, we consign or loan our products to hospitals so our neurosurgeon and orthopedic spine surgeon customers can use them in procedures. We recognize revenue based upon the date that our consigned products have been used in a surgical procedure. Our sales are reported net of customer allowances, rebates and returns.

Cost of sales and gross margin

Our cost of sales primarily consist of costs of products purchased from our third-party suppliers (which includes the entities whose products we distribute), amortization of intellectual property related to our products, direct labor and allocated overhead associated with the assembly of our Exogen system, excess and obsolete inventory charges, shipping, inspection and related costs incurred in making our products available for sale or use. Our products are generally manufactured by third-party suppliers located in Japan, Sweden and the United States. We receive the components for our Exogen system from suppliers and assemble each system in-house at our Cordova, Tennessee facility. In the future, we expect our cost of sales to increase in absolute terms due primarily to increased sales volume.

We calculate gross margin as gross profit divided by net sales. Our gross margin has been and will continue to be affected by a variety of factors, including production volumes, costs of products purchased from our third-party suppliers, product reliability, and implementation over time of cost-reduction strategies. We expect net sales to vary quarter by quarter and therefore our gross profit will likely fluctuate from quarter to quarter.

Selling, general and administrative expenses

Our selling, general and administrative, or SG&A, expenses primarily consist of salaries, benefits and other related costs, including stock-based compensation, for personnel employed in sales, marketing, finance, legal, compliance, administrative, information technology, medical education and training, quality and human resource departments. SG&A expenses also include marketing, supply chain and distribution, information technology, legal, human resources, insurance and facilities expenses. SG&A expenses also include commissions, generally based on a percentage of sales, to direct sales representatives and independent distributors. We expect our SG&A expenses will increase in absolute terms with the continued expansion of our sales organization and commercialization of our current and pipeline products. We plan to hire more personnel to support the growth of our business. In addition, as a public company, we will be implementing additional procedures and processes for the purpose of addressing the standards and requirements applicable to public companies. We expect to incur additional annual SG&A expenses related to these additional procedures and processes including, among other things, increased liability insurance for our directors and officers, director fees, reporting requirements of the SEC, transfer agent fees, hiring additional accounting, legal and

administrative personnel, increased auditing and legal fees and similar expenses. We also expect a change in the timing over which compensation expense is recognized as a result of the termination of the Phantom Plan and the receipt by Phantom Plan participants of shares of Class A common stock upon settlement of their awards, which settlement is expected to take place on the twelve month anniversary of the date of such termination. However, over time, as we grow our net sales, we expect SG&A expenses to decline slightly as a percentage of net sales.

Research and development expenses

Our R&D expenses primarily consist of employee compensation, stock-based compensation and related expenses, and contract research organization services related to clinical trials, primarily related to our next-generation BMP product candidates. Internal R&D costs are expensed as incurred. R&D costs incurred by third parties are expensed as the contracted work is performed. Our R&D expenses may vary substantially from period to period based on the timing of our R&D activities. Over the next several years, we expect to increase our R&D expenses significantly for our next-generation BMP product candidates as we undergo clinical trials to demonstrate the safety and efficacy of the product in order to gain regulatory approvals and as we fund clinical trials for other products and develop new products. These increased R&D expenses on our next-generation BMP product candidates could potentially be multiples of our current R&D expenses on the BMP product candidates. We expect to incur additional R&D expenses of \$8.0 million over the next three years beginning in fiscal 2016 for cash milestone payments we are obligated to pay Pfizer upon the achievement of certain milestones related to our next-generation BMP product candidates. We cannot determine with certainty the timing of initiation, the duration or the completion costs of current or future preclinical studies and clinical trials of our product candidates. At this time, due to the inherently unpredictable nature of preclinical and clinical development, we are unable to estimate with any certainty the costs we will incur or the timelines we will require in the continued development of our next-generation BMP product candidates and any other product candidate that we may develop. Clinical and preclinical development timelines, the probability of success and development costs can differ materially from expectations.

Restructuring costs

Restructuring costs primarily consist of inventory write downs and employee severance and related expenses associated with the exit from a distribution agreement with Esaote North America, Inc. for the sale of diagnostic ultrasound machines in the United States. Key assumptions in determining the restructuring costs include the net realizable value of inventory, headcount reductions, as well as terms and payments that may be negotiated to terminate certain contractual obligations. We do not expect to incur further restructuring costs related to this Esaote agreement. Restructuring costs also include the restructuring and relocation of certain U.S. finance functions and headcount reductions in our international business to improve operating efficiency.

Depreciation and amortization

Depreciation and amortization expense primarily consists of amortization expense related to intellectual property, customer relationships and other intangible assets acquired.

Interest expense

Interest expense primarily consists of interest on our first and second lien credit facilities, which we entered into in October 2014. Prior to October 2014, interest expense primarily consisted of interest on a related party note payable, which was repaid in full from the proceeds of our senior secured credit facilities. We expect to use net proceeds from this offering to repay our second lien term loan facility in full. We have entered into interest rate swaps in an effort to limit our exposure to changes in the variable interest rate on our first lien term loan. Interest expense includes any fair value losses on these derivatives.

Other (income) expense

Other (income) expense primarily consists of foreign currency transaction and remeasurement gains and losses on transactions denominated in currencies other than our functional currency. Our foreign currency transaction and remeasurement gains and losses primarily relate to foreign currency denominated cash, liabilities and intercompany receivables and payables. In 2014, we entered into a foreign exchange forward contract to hedge against the effect of foreign currency fluctuations on amounts owed in Euros related to the acquisition of certain Durolane assets. This contract matured in November 2015 and fair value losses are recorded in other (income) expense.

Income tax expense

Bioventus LLC is treated as a partnership for U.S. federal tax purposes. Accordingly, the profits and losses are passed through to the members and included in their income tax returns. Certain wholly-owned subsidiaries of Bioventus LLC are taxable entities for United States or foreign tax purposes and file tax returns in their local jurisdictions. Income tax expense includes U.S. federal, state and international income taxes. Certain items of income and expense are not reported in income tax returns and financial statements in the same year. The income tax effects of these differences are reported as deferred income taxes. Valuation allowances are provided to reduce the related deferred tax assets to an amount which will, more likely than not, be realized. Interest and penalties related to unrecognized tax benefits are recognized as a component of income tax expense.

After consummation of this offering, we will become subject to U.S. federal, state and local income taxes with respect to our allocable share of any taxable income of Bioventus LLC and will be taxed at the prevailing corporate tax rates. In addition to tax expenses, we will be obligated to make payments under the Tax Receivable Agreement, which could be significant. Under the Tax Receivable Agreement, we will be obligated to pay to the Continuing LLC Owners 85% of the amount of tax benefits, if any, that we actually realize (or in some circumstances are deemed to realize) as a result of (i) increases in the tax basis of assets of Bioventus LLC obtained in the future when a Continuing LLC Owner receives shares of our Class A common stock or, if we and such Continuing LLC Owner agree, cash in connection with an exercise of such Continuing LLC Owner's right to have common units in Bioventus LLC held by such Continuing LLC Owner redeemed by Bioventus LLC or, at the election of Bioventus, Inc., directly exchanged and (ii) certain other tax benefits related to our making payments under the Tax Receivable Agreement. For more information, see "Certain relationships and related party transactions—Tax Receivable Agreement." We intend to cause Bioventus LLC to make distributions in an amount sufficient to allow us to pay our tax obligations, including distributions to fund any ordinary course payments due under the Tax Receivable Agreement. See "Certain relationships and related party transactions—Bioventus LLC Agreement—Distributions."

Adjusted EBITDA

We use Adjusted EBITDA, a non-GAAP financial measure, because we believe it is a useful indicator of our operating performance. Our management uses Adjusted EBITDA principally as a measure of our operating performance and believes that Adjusted EBITDA is useful to our investors because it is frequently used by securities analysts, investors and other interested parties in their evaluation of the operating performance of companies in industries similar to ours. Our management also uses Adjusted EBITDA for planning purposes, including the preparation of our annual operating budget and financial projections. Adjusted EBITDA is defined as net income before depreciation and amortization, interest expense and provision for income taxes, adjusted for the impact of certain cash and non-cash and other items that we do not consider in our evaluation of ongoing operating performance. These items include non-cash equity compensation, restructuring costs, contingent consideration, transition costs, severance, OsteoAMP inventory step-up, purchased in-process R&D

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and R&D costs related to our BMP product candidates. We believe that eliminating the development costs related to our BMP product candidates in our calculation of Adjusted EBITDA is appropriate in creating a useful supplemental measure of our performance because such costs are unrelated to the performance of the remainder of our commercial operations. Adjusted EBITDA by segment is comprised of net sales and costs directly attributable to a segment, as well as an allocation of corporate overhead costs. The allocation of corporate overhead costs is determined based on various methods, but was primarily based on a ratio of net sales by segment to total consolidated net sales. For more information regarding our calculation of Adjusted EBITDA, including information about its limitations as a tool for analysis, please see footnote 2 to the table under "Prospectus summary—Summary historical and pro forma financial data."

Results of operations

The following table sets forth the components of our consolidated statements of operations in dollars and as a percentage of net sales for the periods presented:

(in thousands, except for percentages)	Year ended December 31,					
	2013		2014		2015	
Net sales	\$232,375	100.0%	\$242,893	100.0%	\$253,650	100.0%
Cost of sales (including depreciation and amortization of \$16,693, \$19,622 and \$22,474, respectively)	71,372	30.7%	74,609	30.7%	74,342	29.3%
Gross profit	161,003	69.3%	168,284	69.3%	179,308	70.7%
Selling, general and administrative expenses	150,370	64.7%	147,058	60.5%	148,441	58.5%
Research and development expenses	10,936	4.7%	9,465	3.9%	14,747	5.8%
Change in fair value of contingent consideration	—	—	1,590	0.7%	19,493	7.7%
Restructuring costs	—	—	1,183	0.5%	2,645	1.0%
Depreciation and amortization	7,765	3.3%	8,968	3.7%	10,570	4.2%
Operating income (loss)	(8,068)	(3.5)%	20	0.0%	(16,588)	(6.5)%
Interest expense	11,459	4.9%	11,969	4.9%	14,229	5.6%
Other (income) expense	713	0.3%	(596)	(0.2)%	1,154	0.5%
Other expense, net	12,172	5.2%	11,373	4.7%	15,383	6.1%
Loss before income taxes	(20,240)	(8.7)%	(11,353)	(4.7)%	(31,971)	(12.6)%
Income tax expense	2,127	0.9%	1,547	0.6%	2,140	0.8%
Net loss	\$ (22,367)	(9.6)%	\$ (12,900)	(5.3)%	(34,111)	(13.4)%

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The following table presents a reconciliation of net loss to EBITDA and Adjusted EBITDA for the periods presented:

(in thousands, except per share and share amounts)	Year ended December 31,		
	2013	2014	2015
Net loss	\$ (22,367)	\$ (12,900)	\$ (34,111)
Interest expense, net	11,459	11,969	14,229
Income tax expense	2,127	1,547	2,140
Depreciation and amortization(a)	24,458	28,820	33,078
EBITDA	15,677	29,436	15,336
Non-cash equity compensation(b)	576	2,355	3,325
Restructuring costs(c)	—	1,183	2,645
Contingent consideration(d)	—	1,590	19,493
Transition costs(e)	4,690	—	1,107
Severance(f)	4,542	—	—
Inventory step-up(g)	—	1,629	280
Purchased in-process R&D-BMP(h)	7,000	—	—
BMP program costs(i)	650	6,682	11,309
Adjusted EBITDA	\$ 33,135	\$ 42,875	\$ 53,495

- (a) Includes depreciation and amortization recorded in cost of sales of \$16,693, \$19,622 and \$22,474 for the years ended December 31, 2013, 2014, and 2015, respectively, and depreciation and amortization recorded in R&D expenses of \$0, \$230 and \$34 for the years ended December 31, 2013, 2014 and 2015, respectively.
- (b) Represents non-cash equity compensation resulting from two equity-based compensation plans, the MIP and the Phantom Plan.
- (c) Represents restructuring expenses associated with a plan to no longer sell a diagnostic ultrasound product, including the provision for inventory and employee severance. Also includes the restructuring and relocation of certain U.S. finance functions and headcount reductions in our international business to improve operating efficiency.
- (d) Represents non-cash expense related to changes in the fair value of contingent consideration related to the OsteoAMP acquisition.
- (e) Represents expenses related to the transition of Bioventus LLC to become a separate entity as a result of the divestiture from Smith & Nephew, such as product rebranding, legal fees and consulting expenses.
- (f) Represents 2013 severance costs related to headcount reductions as a result of the divestiture from Smith & Nephew.
- (g) Represents non-cash expense recorded in cost of sales for OsteoAMP and BioStructures inventory subject to valuation step-up as a result of purchase accounting.
- (h) Represents initial expense paid to Pfizer to acquire certain rights related to our next-generation BMP product candidates.
- (i) Represents costs related to our next-generation BMP product candidates.

Results of operations for the year ended December 31, 2015 compared to the year ended December 31, 2014

Consolidated results of operations

Net sales

Net sales increased \$10.8 million, or 4.5%, to \$253.7 million during the fiscal year ended December 31, 2015, compared to \$242.9 million during the fiscal year ended December 31, 2014. The increase was due to an increase in net sales from our Surgical segment of \$21.6 million which was formed by the acquisition of OsteoAMP in October 2014, partially offset by a decrease in net sales of \$8.3 million and \$2.6 million in our Active Healing Therapies — International and U.S. segments, respectively.

Cost of sales and gross margin

Cost of sales decreased \$0.3 million, or 0.4%, to \$74.3 million during the fiscal year ended December 31, 2015, compared to \$74.6 million during fiscal year ended December 31, 2014. The decrease was primarily due to higher cost of sales in 2014 resulting from inventory subject to valuation step-up as required by purchase accounting related to the OsteoAMP acquisition and lower cost of sales in 2015 resulting from lower costs of Durolane. These decreases were partially offset by higher product intellectual property amortization which increased \$2.9 million, or 14.8%, to \$22.5 million in the fiscal year ended December 31, 2015, compared to \$19.6 million in the fiscal year ended December 31, 2014, primarily as a result of the acquisition of OsteoAMP in October 2014. Gross margin for the fiscal year ended December 31, 2015 increased to 70.7%, compared to 69.3% for the fiscal year ended December 31, 2014. The increase in gross margin was primarily attributable to the increase in the proportion of net sales derived from our Surgical segment.

Selling, general and administrative expenses

SG&A expenses increased \$1.4 million, or 0.9%, to \$148.4 million during the fiscal year ended December 31, 2015, compared to \$147.1 million during the fiscal year ended December 31, 2014. The increase was attributable to \$12.7 million of increased SG&A expenses, including sales commissions, related to the inclusion of OsteoAMP for a full year and BioStructures for one month in our consolidated results of operations for 2015. This increase was partially offset by an \$7.1 million decrease in SG&A expenses in the Active Healing Therapies — U.S. segment due to lower sales commissions as a result of lower sales compared to the year ended December 31, 2014, a one-time legal settlement and related fees recorded in 2014 pertaining to a pre-acquisition legal matter shared equally with Smith & Nephew, and other cost savings initiatives in 2015. In addition, the Active Healing Therapies — International segment experienced a \$4.4 million decrease in SG&A expenses due to cost savings initiatives in 2015 and lower sales commissions as a result of lower sales compared to the year ended December 31, 2014.

Research and development expenses

R&D expenses increased \$5.3 million, or 55.8%, to \$14.7 million during the fiscal year ended December 31, 2015, compared to \$9.5 million during the fiscal year ended December 31, 2014. The increase was primarily attributable to increased preclinical costs of \$4.6 million associated with our next-generation BMP product candidates plus other increased R&D expenses of \$0.7 million.

Change in fair value of contingent consideration

Change in fair value of contingent consideration was \$19.5 million during the fiscal year ended December 31, 2015, compared to \$1.6 million during the fiscal year ended December 31, 2014. The change in fair value of contingent consideration during the fiscal year ended December 31, 2015 is attributable to an increase in

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expected OsteoAMP net sales and our estimate of future cash earn-out payments payable to Advanced Biologics over the term of the supply agreement, as compared to the amounts that we forecasted at the time we completed the OsteoAMP acquisition.

Restructuring costs

Restructuring costs increased \$1.5 million, or 123.6% to \$2.6 million, during the fiscal year ended December 31, 2015, compared to \$1.2 million during the fiscal year ended December 31, 2014. Restructuring costs in 2015 were primarily attributable to our decision in January 2015 to discontinue sales of a diagnostic ultrasound product and related sales force reorganization. The 2014 restructuring costs were attributable to a write down of ultrasound inventory related to this decision. 2015 restructuring costs also include restructuring and relocation of certain U.S. finance functions and headcount reductions in our international business to improve operating efficiency.

Depreciation and amortization

Depreciation and amortization expense increased \$1.6 million, or 17.9%, to \$10.6 million during the fiscal year ended December 31, 2015, compared to \$9.0 million during the fiscal year ended December 31, 2014. The increase was primarily attributable to amortization of intangible assets associated with the OsteoAMP acquisition in October 2014.

Interest expense

Interest expense increased \$2.3 million, or 18.9%, to \$14.2 million during the fiscal year ended December 31, 2015, compared to \$12.0 million during the fiscal year ended December 31, 2014. Interest expense in 2014 was lower primarily due to the refinancing of the Smith & Nephew debt in October 2014, which resulted in the elimination of the unamortized loan premium.

Other (income) expense

Other (income) expense increased \$1.8 million to an expense of \$1.2 million during the fiscal year ended December 31, 2015, compared to an income of \$(0.6) million during the fiscal year ended December 31, 2014. The increase was attributable to foreign currency fluctuations.

Income tax expense

Income tax expense increased \$0.6 million to \$2.1 million during the fiscal year ended December 31, 2015, compared to \$1.5 million during the fiscal year ended December 31, 2014. Income tax expense in 2014 was lower than 2015 primarily due to a \$0.9 million state tax refund received in 2014 related to the move of our headquarters from Tennessee to North Carolina in 2012.

Segment results

The following table sets forth for the periods indicated our net sales by operating segment, with changes in net sales between the specific periods expressed in dollar amounts and as a percentage.

(in thousands)	Year ended December 31,		Change	
	2014	2015	\$	%
Active Healing Therapies — U.S.	\$ 194,568	\$ 192,014	\$ (2,554)	(1.2)%
Active Healing Therapies — International	44,175	35,847	(8,328)	(18.9)%
Surgical	4,150	25,789	21,639	521.4%

Active Healing Therapies — U.S.

Net sales for our Active Healing Therapies — U.S. segment decreased by \$2.6 million, or 1.2%, to \$192.0 million during the fiscal year ended December 31, 2015, compared to \$194.6 million during the fiscal year ended December 31, 2014. The decrease was primarily due to the decision in January 2015 to discontinue sales of a diagnostic ultrasound product which accounted for \$3.9 million in net sales in 2014 and \$0 in 2015.

Active Healing Therapies — International

Net sales for our Active Healing Therapies — International segment decreased by \$8.3 million, or 18.9%, to \$35.8 million during the fiscal year ended December 31, 2015, compared to \$44.2 million during the fiscal year ended December 31, 2014. The decrease was primarily due to unfavorable foreign currency translation adjustments, increased competition for our Exogen system and Durolane and increased pressure from third-party payers on coverage limits.

Surgical

Net sales for our Surgical segment increased by \$21.6 million, or 521.4%, to \$25.8 million during the fiscal year ended December 31, 2015, compared to \$4.2 million during the fiscal year ended December 31, 2014. We acquired OsteoAMP in October 2014, therefore the fiscal year ended December 31, 2015 was the first full year of operating results for our Surgical segment compared to three months in fiscal 2014.

Adjusted EBITDA for each of our reportable segments was as follows:

(in thousands)	Year ended December 31,		Change	
	2014	2015	\$	%
Active Healing Therapies — U.S.	\$ 33,466	\$ 40,161	\$ 6,695	20.0%
Active Healing Therapies — International	7,778	6,743	(1,035)	(13.3)%
Surgical	1,631	6,591	4,960	304.1%
BMP expenses	(6,682)	(11,309)	(4,627)	(69.2)%

Active Healing Therapies — U.S.

Adjusted EBITDA for our Active Healing Therapies — U.S. segment increased by \$6.7 million, or 20.0%, to \$40.2 million during the fiscal year ended December 31, 2015, compared to \$33.5 million during the fiscal year ended December 31, 2014. The net sales decrease of \$2.6 million from the prior year was offset by lower costs of goods sold, lower sales commissions, SG&A cost savings initiatives and lower legal and professional costs during the fiscal year ended December 31, 2014 relating to the settlement of a pre-acquisition legal matter shared equally with Smith & Nephew.

Active Healing Therapies — International

Adjusted EBITDA for our Active Healing Therapies — International segment decreased \$1.0 million, or 13.3%, to \$6.7 million during the fiscal year ended December 31, 2015, compared to \$7.8 million during the fiscal year ended December 31, 2014. The net sales decrease of \$8.3 million from the prior year was partially offset by lower cost of goods sold, lower sales commissions and SG&A savings initiatives.

Surgical

Adjusted EBITDA for our Surgical segment increased \$5.0 million, or 304.1%, to \$6.6 million during the fiscal year ended December 31, 2015, compared to \$1.6 million during the fiscal year ended December 31, 2014. We acquired the OsteoAMP product line in October 2014, therefore the fiscal year ended December 31, 2015 was

the first full year of operating results for our Surgical segment compared to three months in fiscal 2014. Additionally, Adjusted EBITDA for fiscal 2015 included one month of operating results from our BioStructures acquisition.

BMP

BMP expense increased \$4.6 million to \$11.3 million during the fiscal year ended December 31, 2015, compared to \$6.7 million during the fiscal year ended December 31, 2014. During 2015, we significantly advanced the program through the design and development of a new protein molecule and advanced related carrier technology that enables a more targeted, controlled release of BMP.

Results of operations for the year ended December 31, 2014 compared to the year ended December 31, 2013

Consolidated results of operations

Net sales

Net sales increased \$10.5 million, or 4.5%, to \$242.9 million during the fiscal year ended December 31, 2014, compared to \$232.4 million during the fiscal year ended December 31, 2013. The increase was attributable to an increase of \$8.9 million from our Active Healing Therapies — International segment, partially offset by a decrease of \$2.6 million from our Active Healing Therapies — U.S. segment. An increase of \$4.2 million was attributable to our Surgical segment that was formed with the acquisition of the OsteoAMP product line in October 2014.

Cost of sales and gross margin

Cost of sales increased \$3.2 million, or 4.5%, to \$74.6 million during the fiscal year ended December 31, 2014, compared to \$71.4 million during the fiscal year ended December 31, 2013. The increase was primarily attributable to an increase of \$2.9 million in amortization expense in 2014 and the inclusion of cost of sales from OsteoAMP, which we acquired in October 2014. These increases were partially offset by a reduction in cost of sales for Durolane as a result of the acquisition of certain Durolane assets outside the United States in 2013. Gross margin for the fiscal years ended December 31, 2014 and December 31, 2013 was 69.3%.

Selling, general and administrative expenses

SG&A expenses decreased \$3.3 million, or 2.2%, to \$147.1 million during the fiscal year ended December 31, 2014, compared to \$150.4 million during the fiscal year ended December 31, 2013. The decrease was primarily attributable to lower transition costs of \$4.6 million and lower severance costs of \$4.5 million. These decreases were partially offset by higher SG&A expenses in 2014, including \$1.8 million relating to the OsteoAMP acquisition in October 2014, \$1.0 million for a legal settlement and related fees pertaining to a pre-acquisition legal matter shared equally with Smith & Nephew, and higher sales commissions as a result of increased sales in our Active Healing Therapies — International segment. In addition, SG&A expenses were higher in 2014 due to the transition to a company-operated sales force arrangement in the International segment from the distribution arrangement with Smith & Nephew established with the spin-out from Smith & Nephew in May 2012. Under the distribution arrangement, Smith & Nephew marketed and sold products outside the United States on our behalf until the completion of the transition to our sales force in 2014.

Research and development expenses

R&D expenses decreased \$1.5 million, or 13.5%, to \$9.5 million during the fiscal year ended December 31, 2014, compared to \$10.9 million during the fiscal year ended December 31, 2013. In 2013, we paid Pfizer an initial upfront cash payment for an exclusive, worldwide license subject to certain field of use and other restrictions to certain parts of Pfizer's BMP portfolio, which was recorded as in-process R&D expenses in 2013. Excluding this

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expense of \$7.0 million in 2013, R&D expenses increased by \$5.6 million during the fiscal year ended December 31, 2014. This increase was primarily attributable to a \$6.0 million increase in R&D expenses related to the development of our BMP product candidates.

Change in fair value of contingent consideration

Change in fair value of contingent consideration was \$1.6 million during the fiscal year ended December 31, 2014, compared to \$0 during the fiscal year ended December 31, 2013. The change in fair value of contingent consideration during the fiscal year ended December 31, 2014, is attributable to an increase in expected OsteoAMP net sales and our estimate of future cash earn-out payments payable to Advanced Biologics over the term of the supply agreement, as compared to the amounts that we forecasted at the time we completed the OsteoAMP acquisition.

Restructuring costs

Restructuring costs were \$1.2 million during the fiscal year ended December 31, 2014, compared to \$0 during the fiscal year ended December 31, 2013. These costs were attributable to a write down of inventory associated with a diagnostic ultrasound product.

Depreciation and amortization

Depreciation and amortization increased \$1.2 million, or 15.5%, to \$9.0 million during the fiscal year ended December 31, 2014, compared to \$7.8 million during the fiscal year ended December 31, 2013. The increase was primarily attributable to depreciation of fixed assets brought into service in 2014 and amortization of intangible assets associated with the OsteoAMP acquisition in October 2014.

Interest expense

Interest expense increased \$0.5 million, or 4.5%, to \$12.0 million during the fiscal year ended December 31, 2014, compared to \$11.5 million during the fiscal year ended December 31, 2013 primarily due to fluctuations in the amount of our outstanding indebtedness and changes in the applicable interest rate.

Other (income) expense

Other (income) expense improved by \$1.3 million, or 184%, to income of \$0.6 million during the fiscal year ended December 31, 2014, compared to an expense of \$0.7 million during the fiscal year ended December 31, 2013. The improvement was attributable to foreign currency fluctuations.

Income tax expense

Income tax expense decreased \$0.6 million, or 27.2%, to \$1.5 million during the fiscal year ended December 31, 2014, compared to \$2.1 million during the fiscal year ended December 31, 2013. The decrease was primarily due to a \$0.9 million state tax refund received in 2014 related to the move of our headquarters from Tennessee to North Carolina in 2012.

Segment results

The following table sets forth for the periods indicated our net sales by operating segment, with changes in net sales between the specific periods expressed in dollar amounts and as a percentage.

(in thousands)	Fiscal year ended December 31		Change	
	2013	2014	\$	%
				(unaudited)
Active Healing Therapies — U.S.	\$197,118	\$194,568	\$(2,550)	(1.3)%
Active Healing Therapies — International	35,257	44,175	8,918	25.3%
Surgical	—	4,150	4,150	NM

Active Healing Therapies — U.S.

Net sales for our Active Healing Therapies — U.S. segment decreased by \$2.6 million, or 1.3%, to \$194.6 million during the fiscal year ended December 31, 2014, compared to \$197.1 million during the fiscal year ended December 31, 2013. The decrease was primarily due to declining sales of the diagnostic ultrasound product to \$3.9 million in 2014 from \$5.1 million in 2013. Sales of diagnostic ultrasound were discontinued in January 2015.

Active Healing Therapies — International

Net sales for our Active Healing Therapies — International segment increased by \$8.9 million, or 25.3%, to \$44.2 million during the fiscal year ended December 31, 2014, compared to \$35.3 million during the fiscal year ended December 31, 2013. The increase was primarily attributable to the completion of the transition of all of the international assets from Smith & Nephew during 2014. A distribution arrangement with Smith & Nephew was established with the spin-out from Smith & Nephew in May 2012. Under the distribution arrangement, Smith & Nephew marketed and sold products outside the United States on our behalf until the completion of the transition to our sales force in 2014.

Surgical

Net sales for our Surgical segment increased by \$4.2 million during the fiscal year ended December 31, 2014, compared to \$0 million during the fiscal year ended December 31, 2013 due to the acquisition of OsteoAMP in October 2014, which formed our Surgical business.

Adjusted EBITDA for each of our reportable segments was as follows:

(in thousands)	Year ended December 31,		Change	
	2013	2014	\$	%
Active Healing Therapies — U.S.	\$32,557	\$33,466	\$ 909	2.8%
Active Healing Therapies — International	578	7,778	7,200	1,245.7%
Surgical	—	1,631	1,631	NM
BMP expenses	(7,650)	(6,682)	968	12.6%

Active Healing Therapies — U.S.

Adjusted EBITDA for our Active Healing Therapies — U.S. segment increased by \$0.9 million, or 2.8%, to \$33.5 million during the fiscal year ended December 31, 2014, compared to \$32.6 million during the fiscal year ended December 31, 2013. The sales decrease of \$2.5 million from the prior year was offset by lower costs of goods sold, lower sales commissions, SG&A cost savings initiatives and lower R&D expenses.

Active Healing Therapies — International

Adjusted EBITDA for our Active Healing Therapies — International segment of \$7.8 million during the fiscal year ended December 31, 2014, increased by \$7.2 million, or 391.4%, when compared to \$0.6 million during the fiscal year ended December 31, 2013. The increase was primarily attributable to increased sales and earnings related to the transition of all of the intangible assets from Smith & Nephew and the completion of the transition in 2014 from the distribution arrangement with Smith & Nephew to a company-operated sales force arrangement in our International segment. The distribution arrangement with Smith & Nephew was initially established with the spin-out from Smith & Nephew in May 2012. Under the distribution arrangement, Smith & Nephew marketed and sold products outside the United States on our behalf until the completion of the transition to our sales force in 2014. In addition, the acquisition of certain Durolane assets outside the United States resulted in lower cost of goods sold for Durolane in 2014.

Surgical

Adjusted EBITDA for our Surgical segment was \$1.6 million during the fiscal year ended December 31, 2014, compared to \$0 during the fiscal year ended December 31, 2013. We acquired the OsteoAMP product line in October 2014, therefore there were no Surgical operating results or Adjusted EBITDA during the fiscal year ended December 31, 2013.

BMP

BMP expense decreased \$1.0 million, or 12.6%, to \$6.7 million during the fiscal year ended December 31, 2014, compared to \$7.7 million during the fiscal year ended December 31, 2013. During 2013, we paid Pfizer an upfront cash payment for an exclusive, worldwide license subject to certain field of use and other restrictions to certain parts of Pfizer's BMP portfolio. Excluding the initial upfront payment, BMP activity increased significantly during 2014, resulting in additional R&D costs of \$6.0 million when compared to the fiscal year ended December 31, 2013.

Seasonality and quarterly results of operations data

Our business is seasonal in nature primarily due to the variability of the U.S. healthcare insurance industry. The majority of U.S. healthcare insurance plans renew annually at the beginning of January. As a result of individuals changing insurance companies and the reset of insurance plan deductibles, our quarterly net sales are typically lower in the first quarter of the year and highest in the fourth quarter. Additionally, our results from quarter to quarter may be influenced by a number of factors, including, but not limited to: the number of available selling days, which can be impacted by holidays; the mix of products sold; the geographic mix of where products are sold; the demand for our products and the products of our competitors; the timing of or failure to obtain regulatory approvals or clearances for products; increased competition; the timing of customer orders; inventory write-offs and write-downs; costs, benefits and timing of new product introductions; the availability and cost of components and supplies and fluctuations in foreign currency exchange rates.

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The following table sets forth our unaudited quarterly consolidated statements of operations data and other data for each of the eight most recent quarters in the period ended December 31, 2015. We have prepared the quarterly consolidated results of operations data on a consistent basis with the audited consolidated financial statements included elsewhere in this prospectus. In the opinion of management, the quarterly results of operations data reflects all necessary adjustments, consisting only of normal recurring adjustments, necessary for a fair statement of this data. The consolidated statements of operations data should be read in conjunction with the consolidated financial statements and related notes included elsewhere in this prospectus. The results of historical periods are not necessarily indicative of results for a full year or for any future period.

(in thousands, except percentages)	Three months ended							
	March 29, 2014	June 28, 2014	September 27, 2014	December 31, 2014	March 28, 2015	June 27, 2015	September 26, 2015	December 31, 2015
Net sales	\$ 50,820	\$ 61,549	\$ 60,899	\$ 69,625	\$ 53,362	\$ 65,794	\$ 63,333	\$ 71,161
Cost of sales (including depreciation and amortization)	15,164	18,824	18,536	22,086	16,807	19,413	18,139	19,983
Gross profit	35,656	42,725	42,363	47,539	36,655	46,381	45,194	51,178
Selling, general and administrative	34,609	35,211	36,927	40,311	37,270	36,909	35,272	38,990
R&D expenses	1,378	1,984	2,782	3,321	2,966	2,922	4,113	4,746
Change in contingent consideration	—	—	—	1,590	8,971	3,099	1,895	5,528
Restructuring costs	—	—	—	1,183	1,076	408	128	1,033
Depreciation and amortization	2,094	2,144	2,130	2,600	2,571	2,566	2,720	2,713
Operating income (loss)	(2,425)	3,386	524	(1,466)	(16,299)	477	1,066	(1,832)
Interest expense	3,192	3,392	3,442	1,943	3,854	3,258	3,711	3,406
Other (income) expense	(63)	101	(891)	257	496	523	27	108
Other expense, net	3,129	3,493	2,551	2,200	4,350	3,781	3,738	3,514
Loss before income taxes	(5,554)	(107)	(2,027)	(3,666)	(20,649)	(3,304)	(2,672)	(5,346)
Income tax expense (benefit)	362	663	(153)	675	369	781	258	732
Net loss	\$ (5,916)	\$ (770)	\$ (1,874)	\$ (4,341)	\$ (21,018)	\$ (4,085)	\$ (2,930)	\$ (6,078)

Liquidity and capital resources

Overview

Our principal liquidity needs have historically been for acquisitions, working capital, R&D, clinical trials, and capital expenditures. We expect these needs to continue as we develop and commercialize new products, hire additional direct sales representatives and further our expansion into international markets. Over the next several years, we expect to increase our R&D expenses for our next-generation BMP product candidates as we undergo clinical trials to demonstrate the safety and efficacy of the product. To date, we have funded our operations primarily with cash flow from operations and borrowings under our revolving credit facility.

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As of December 31, 2015, we had \$5.0 million in cash and cash equivalents and \$11.3 million of working capital, compared to \$15.8 million and \$27.3 million, respectively, on December 31, 2014. As of December 31, 2015, we had outstanding indebtedness of \$8.0 million under our revolving credit facility (leaving availability of \$32.0 million) and \$166.4 million under our term loan facilities. Accessing availability under our revolving credit facility is subject to compliance with the financial covenants and other customary conditions precedent. Pursuant to the terms of the first lien term loan facilities, we are required to make quarterly payments of between \$1.4 million and \$5.8 million up to September 2019, with the remaining balance of \$40.3 million due on October 10, 2019, the maturity date of the first lien term loan facilities. The aggregate principal amount of \$60.0 million under our second lien term facility is due in full on April 10, 2020.

We believe that our existing cash and cash equivalents, borrowing capacity under our revolving credit facility, cash flow from operations and net proceeds from this offering will be sufficient in the aggregate to meet our anticipated cash requirements for at least the next twelve months. We may, however, require additional liquidity as we continue to execute our business strategy. Our liquidity may be negatively impacted as a result of a decline in sales of our products, including declines due to changes in our customers' ability to obtain third-party coverage and reimbursement for procedures that use our products, increased pricing pressures resulting from intensifying competition and cost increases, in addition to general economic and industry factors. We anticipate that to the extent that we require additional liquidity, it will be funded through the incurrence of other indebtedness, additional equity financings or a combination of these potential sources of liquidity. In addition, we may raise additional funds to finance future cash needs through receivables or royalty financings or corporate collaboration and licensing arrangements. If we raise additional funds by issuing equity securities or convertible debt, our stockholders will experience dilution. Debt financing, if available, would result in increased fixed payment obligations and may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. If we raise additional funds through collaboration and licensing arrangements with third parties, it may be necessary to relinquish valuable rights to our products, future revenue streams or product candidates or to grant licenses on terms that may not be favorable to us. The covenants under our credit facilities limit our ability to obtain additional debt financing. We cannot be certain that additional funding will be available on acceptable terms, or at all. Any failure to raise capital in the future could have a negative impact on our financial condition and our ability to pursue our business strategies.

Cash flows

	Years ended		
(in thousands)	December 31, 2013	December 31, 2014	December 31, 2015
Net cash (used in) provided by:			
Operating activities	\$ 2,749	\$ 15,109	\$ 18,920
Investing activities	(10,999)	(31,376)	(60,185)
Financing activities	6,801	(6,645)	31,246
Effect of exchange rate changes on cash and cash equivalents	(514)	(1,428)	(805)
Net decrease in cash and cash equivalents	\$ (1,963)	\$ (24,340)	\$ (10,824)

Net cash provided by operating activities

Net cash provided by operating activities consists primarily of net loss adjusted for certain non-cash items (including depreciation and amortization, change in fair value of contingent consideration, in-kind interest expense, profits interest compensation, foreign currency adjustments, provisions for doubtful accounts and amortization of debt premium and capitalized loan fees), and the effect of changes in working capital and other activities.

Net cash provided by operating activities increased \$3.8 million, or 25.2%, to \$18.9 million during the year ended December 31, 2015 compared to \$15.1 million during the year ended December 31, 2014. For 2015, the net loss of \$34.1 million as adjusted for aggregate non-cash items of \$63.7 million was \$29.6 million. This was an improvement of \$2.5 million when compared to \$27.1 million in 2014, which is comprised of the net loss of \$12.9 million as adjusted for aggregate non-cash items of \$40.0 million. This improvement was primarily due to improved earnings in the Active Healing Therapies — U.S. and Surgical segments partially offset by lower earnings in Active Healing Therapies — International and increased BMP spending. Other elements of net cash provided by operating activities improved by \$1.4 million during the fiscal year ended December 31, 2015, compared to the prior year. This improvement was primarily due to a reduction in a liability for paid in-kind interest in 2014 related to debt refinancing. The improvement was partially offset by an increase in accounts receivable and inventories primarily resulting from increased post-acquisition OsteoAMP sales.

Net cash provided by operating activities increased \$12.4 million, or 449.6% to \$15.1 million during the fiscal year ended December 31, 2014 compared to \$2.7 million during the fiscal year ended December 31, 2013. For 2014, the net loss of \$12.9 million, as adjusted for aggregate non-cash items of \$40.0 million was \$27.1 million. This was an improvement of \$8.0 million when compared to \$19.2 million in 2013, which is comprised of the net loss of \$22.4 million as adjusted for aggregate non-cash items of \$41.5 million. This improvement was primarily due to the earnings resulting from the OsteoAMP acquisition and increased sales and earnings related to the completion of the transition in 2014 from a distribution arrangement with Smith & Nephew to a company-operated sales force arrangement in our Active Healing Therapies — International segment. The distribution arrangement with Smith & Nephew was initially established with the spin-out from Smith & Nephew in May 2012. Under the distribution arrangement, Smith & Nephew marketed and sold products outside the United States on our behalf until the completion of the transition of our sales force in 2014. Other elements of net cash provided by operating activities improved by \$4.4 million during the fiscal year ended December 31, 2015, compared to the prior year. This improvement was primarily due to a reduction in inventories due to working capital initiatives. The improvement was partially offset by the payment of a liability in 2014 related to in-kind interest as a result of debt refinancing.

Net cash (used in) investing activities

Net cash (used in) investing activities primarily consists of acquisitions and capital expenditures.

Net cash used in investing activities increased \$28.8 million, or 91.8%, to \$60.2 million during the year ended December 31, 2015 compared to \$31.4 million during the year ended December 31, 2014. The increase in net cash used in investing activities was primarily attributable to a total of \$56.8 million paid in 2015 with respect to our BioStructures acquisition and acquisition of certain Durolane assets, compared to a total of \$30.2 million paid in 2014 with respect to our OsteoAMP acquisition and acquisition of certain Durolane assets.

Net cash used in investing activities increased \$20.4 million, or 185.5%, to \$31.4 million for the fiscal year ended December 31, 2014 compared to \$11.0 million for the fiscal year ended December 31, 2013. The increase in net cash used in investing activities was primarily attributable to our acquisition of OsteoAMP and certain Durolane assets in fiscal 2014, partially offset by a decrease of \$5.4 million in cash used for the purchase of property and equipment.

Net cash (used in) provided by financing activities

Net cash (used in) provided by financing activities primarily consists of capital raising activities through equity or debt financing.

Net cash provided by financing activities increased \$37.9 million to \$31.2 million during the year ended December 31, 2015, compared to \$6.6 million used in financing activities during the year ended December 31, 2014. The increase in cash provided by financing activities was primarily attributable to a \$50.0 million capital

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contribution in connection with the BioStructures acquisition and \$8.0 million of net borrowings on our revolving credit facility, partially offset by a \$14.6 million increase in payments of contingent consideration with respect to our OsteoAMP acquisition and \$5.8 million increase in principal repayments on our senior secured credit facilities.

Net cash used in financing activities increased \$13.4 million, or 197.7%, to \$6.6 million during the fiscal year ended December 31, 2014, compared to net cash provided by financing activities of \$6.8 million in 2013. The change was primarily attributable to payments of \$160.0 million on a related party note payable and net repayments of \$21.1 million on our revolving credit facility, partially offset by the net proceeds from a borrowing of \$170.5 million of cash under our senior secured credit facilities.

Indebtedness

Credit facilities

On October 10, 2014, we entered into senior secured credit facilities with JPMorgan Chase Bank, N.A., as administrative agent, and a syndicate of other banks, financial institutions and other entities as lenders. Our senior secured credit facilities are comprised of a \$115.0 million first lien term loan facility, a \$60.0 million second lien term loan facility and a \$40.0 million revolving credit facility. All obligations under our senior secured credit facilities are guaranteed by certain of our direct and indirect wholly-owned domestic subsidiaries, and secured by substantially all of our and the guarantors' assets. The first lien term loan and revolving credit facilities mature on October 10, 2019 and the second lien term loan facility matures on April 10, 2020. The agreement governing our senior secured credit facilities contains various restrictive covenants, including a covenant not to exceed a consolidated leverage ratio of 5.00 to 1.00 as of December 31, 2014, 4.75 to 1.00 as of December 31, 2015, 4.50 to 1.00 as of December 31, 2016, 4.00 to 1.00 as of December 31, 2017, and 3.65 to 1.00 as of December 31, 2018 and a covenant to maintain a fixed charge coverage ratio of at least 1.25 to 1.00. The leverage ratio and the fixed charge coverage ratio in our senior secured credit facilities are based on Adjusted EBITDA as defined in the credit agreement, which includes several differences from Adjusted EBITDA as calculated in this prospectus. The restrictive covenants also include limitations on our ability to repurchase shares, to pay cash dividends or to enter into a sale transaction. As of December 31, 2015, we were in compliance with all covenants under our senior secured credit facilities and there were \$166.4 million outstanding borrowings under these facilities. As of December 31, 2015 there was \$8.0 million outstanding under our revolving credit facility.

On November 20, 2015 we amended our senior secured credit facilities to enable certain sales and costs related to acquisitions to be included and certain BMP development expenses to be excluded from future covenant calculations, as well as amending certain covenant calculations. We expect to further amend our senior secured credit facilities to reflect changes in our corporate structure as a result of this offering, among other things. We expect to use a portion of the net proceeds from this offering to repay our second lien term loan facility in full.

Off-balance sheet arrangements

We do not have any off-balance sheet arrangements.

Contractual obligations

The following table sets out, as of December 31, 2015, our contractual obligations due by period.

(in thousands)	Payments due by period				
	Less than 1 year	1-3 Years	3-5 Years	More than 5 years	Total
Long-term debt obligations(1)	\$ 12,938	\$35,938	\$125,500	\$ —	\$174,375
Interest on long-term debt obligations(2)	10,628	19,220	9,901	—	39,749
Capital lease obligations(3)	1,354	1,193	—	—	2,547
Operating lease obligations(4)	3,023	4,828	1,903	—	9,230
Purchase obligations(5)	32,109	5,500	—	—	37,609
Deferred purchase price(6)	30,000	—	—	—	30,000
Royalties(7)	201	402	402	603	1,608
Consulting agreements(8)	1,556	—	—	—	1,556
	<u>\$ 91,809</u>	<u>\$66,556</u>	<u>\$137,706</u>	<u>\$ 603</u>	<u>\$296,674</u>

- (1) Our long term debt obligations include principal amounts due on our first lien term loan, second lien term loan and revolving loan balances. We intend to use \$60.0 million of the net proceeds from this offering to reduce all of the outstanding amounts under our second lien term loan facility. We have \$8.0 million outstanding on our long-term revolving credit facility as of December 31, 2015, which is due at maturity on October 10, 2019. The amounts shown in the table above exclude unamortized original issue discount of \$1.5 million and deferred financing costs of \$2.3 million.
- (2) Includes interest due on our first lien term loan, second lien term loan and revolving loan balances. We have entered into derivative instruments to fix the interest rate on \$70.0 million of our first lien term loans, which results in interest payments of \$2.8 million annually and is included in the table above. The derivative instruments expire on November 30, 2017. The interest rates for the remaining portion of the loans is subject to a variable rate and assumes the continuation of the interest rate in effect as of December 31, 2015. Interest on the long-term revolver balance of \$8.0 million will be \$0.3 million annually. Interest on long-term debt obligations includes \$6.6 million of annual interest expense and \$28.2 million of total interest expense on our second lien term loan facility, which we intend to repay with a portion of the net proceeds with this offering.
- (3) Our capital lease obligations relate to software and computer equipment.
- (4) Our operating lease obligations relate to office facilities and other property and equipment.
- (5) Our purchase obligations include only those minimum supply agreement commitments which are non-cancelable in nature or required by a contract. Some of our products are manufactured exclusively by single-source third party manufacturers with which we have multi-year supply agreements. The commitments under these supply agreements have been excluded from the table above except for those amounts that are contractually committed as of December 31, 2015. The Durolane supply agreement is contracted based on a three-month forecast and the supply agreement extends through December 31, 2028. The Supartz supply agreement includes a contractual annual minimum of up to 70% of the annual supply plan, which is \$15.8 million for 2016 and \$5.5 million for 2017. This supply agreement expires on May 4, 2017. Our OsteoAMP supply agreement does not state any contractual minimums, however firm purchase commitments are agreed approximately four to six months prior to purchase. Based on management assumptions for market rates and future contract revenues, the estimated fair market value of the contingent cash consideration payable under the OsteoAMP supply agreement is \$20.8 million as of December 31, 2015. This supply agreement extends through October 2018. The table above does not include annual minimum purchase orders under the GelSyn-3 supply agreement, which was entered into in February 2016.
- (6) We are required to pay a total of \$23.5 million note payable and a \$5.0 million deferred payment in November 2016 related to the BioStructures acquisition. This amount is not contingent.
- (7) Represents the minimum royalties due under the license agreement between BioStructures and a third party for licensed products containing bioactive bone graft putty. We are obligated to pay the greater of the minimum royalty or gross sales times 1.50% for 2016-2017 or 2.00% for 2018-2023. In addition, we are also party to a royalty agreement for the use of bioactive glass in certain of its products; this agreement does not require minimum royalties and therefore has not been reflected in the table above.
- (8) We agreed to pay \$1.2 million to the former owners of BioStructures for consulting services and \$0.4 million in other annually renewable consulting agreements.

The table above does not include certain contingent obligations as follows:

- (a) We may owe contingent payments to Advanced Biologics in connection with our acquisition of OsteoAMP. These payments are contingent on achieving certain net sales targets through December 31, 2023 and based on expected purchases within our four-year supply agreement with Advanced Biologics. The present value of contingent consideration expected to be paid to Advanced Biologics is approximately \$20.8 million under the terms of the supply agreement and \$14.7 million upon achieving certain sales targets through 2023.

(b) We may owe a contingent payment to the former owners of BioStructures in connection with the acquisition. This payment is contingent upon the achievement of certain research and development milestones through November 24, 2017. The present value of contingent consideration expected to be paid is \$4.5 million as of December 31, 2015.

(c) We may owe contingent payments to Pfizer upon the achievement of certain milestones, as well as royalty payments to Pfizer on sales upon commercialization of any product covered by the license.

Quantitative and qualitative disclosures about market risk

We are exposed to various market risks, which may result in potential losses arising from adverse changes in market rates, such as interest rates and foreign exchange rates. We do not enter into derivatives or other financial instruments for trading or speculative purposes. We use derivative instruments to manage exposures to interest rates and foreign currencies. Derivatives are recorded on the balance sheet at fair value at each balance sheet date. We have elected the fair value method of accounting and do not designate whether the derivative instrument is an effective hedge of an asset, liability or firm commitment. Changes in the fair values of derivative instruments are recognized in the consolidated statements of operations and comprehensive loss.

Interest rate risk

Our cash and cash equivalents balance as of December 31, 2015 consisted of demand deposits and institutional money market funds held in U.S. and foreign banks. Cash equivalents consist of highly liquid investment securities with original maturities on the date of purchase of three months or less and can be exchanged for a known amount of cash. We are exposed to the market risk related to fluctuations in interest rates and market prices. We are exposed to interest rate risk in connection with borrowings under our senior secured credit facilities, which bear interest at a floating rate based on one-month LIBOR plus an applicable borrowing margin. As of December 31, 2015, 1% increase in interest rate would result in a \$4.2 million increase in total interest payable over the remaining life of the credit facilities in the event we were to draw down the entire capacity of our revolving credit facility. For variable rate debt, interest rate changes generally do not affect the fair value of the debt instrument, but do impact future earnings and cash flows, assuming other factors are held constant. In the ordinary course of business, we may enter into contractual arrangements to reduce our exposure to interest rate risks.

In November 2014, we entered into three interest rate swaps effective November 28, 2014 and expiring November 30, 2017 in an effort to limit our exposure to changes in the variable interest rate on its first lien term loans. The derivative instruments have not been designated as hedges.

Foreign exchange risk management

We operate in countries other than the United States, and, therefore, we are exposed to foreign currency risks. We bill most direct sales outside of the United States in local currencies. We expect that the percentage of our sales denominated in foreign currencies will increase in the foreseeable future as we continue to expand into international markets. When sales or expenses are not denominated in U.S. dollars, a fluctuation in exchange rates could affect our net income. We believe that the risk of a significant impact on our operating income from foreign currency fluctuations is minimal. Although we do not currently have any foreign currency hedge, we have used foreign exchange forward contracts in the past to protect the effect of foreign currency fluctuations and may use forward contracts, derivatives or other hedges for foreign exchange risk management purposes in the future.

Effects of inflation

We do not believe that inflation has had a material effect on our results of operations during the periods presented herein.

Related parties

For a description of our related party transactions, see “Certain relationships and related party transactions.”

Recently issued accounting standards

In May 2014, the U.S. Financial Accounting Standards Board, or FASB, issued guidance that provides a comprehensive new revenue recognition model that requires a company to recognize revenue to depict the transfer of goods or services to a customer at an amount that reflects the consideration it expects to receive in exchange for those goods or services. The guidance also requires additional disclosure about the nature, amount, timing and uncertainty of revenue and cash flows arising from customer contracts. This guidance is effective for annual and interim periods beginning after December 15, 2017. Early adoption is permitted for annual reporting periods beginning after December 15, 2016. We are currently evaluating the impact of this new standard on our consolidated financial statements, the date of adoption, and the transition approach to implement the new guidance.

In February 2015, the FASB issued guidance which changes the analysis in determining whether an entity is considered a variable interest entity, or VIE, and the identification of the primary beneficiary of the VIE to determine whether the VIE should be included in an entity's consolidated financial statements. We will adopt the new accounting guidance on January 1, 2016, as required. We do not expect this guidance to have a material effect on our consolidated financial statements.

In April 2015, the FASB issued guidance that requires debt issuance costs related to a recognized debt liability to be presented in the consolidated balance sheet as a direct deduction from the debt liability rather than as an asset. In August 2015, the FASB updated guidance issued in April 2015 related to debt issuance costs to include SEC guidance regarding line-of-credit arrangements. The SEC staff would not object to deferring and presenting debt issuance costs as an asset for line of credit arrangement regardless of whether there is an outstanding balance. We adopted the new accounting guidance early on December 31, 2015 resulting in a reclassification of \$2.2 million and \$1.8 million in other assets to a reduction of the long-term debt balance at December 31, 2014 and 2015, respectively.

In September 2015, the FASB issued guidance that eliminated the requirement that an acquirer in a business combination account for the measurement-period adjustments retrospectively. The acquirer will recognize the measurement-period adjustment during the period in which the adjustment is determined. We adopted this guidance as of January 1, 2015, with no material effect on our consolidated financial statements.

In November 2015, the FASB issued guidance that requires companies to classify all deferred tax assets and liabilities as noncurrent on the consolidated balance sheet. We adopted the new accounting guidance early on December 31, 2015 resulting in a reclassification of \$0.3 million and \$0.3 million in current deferred tax liabilities to long term at December 31, 2014 and 2015, respectively.

In February 2016, the FASB issued guidance that requires lessees to put most leases on their balance sheets but recognize expenses on their income statements. It also modifies the classification criteria and the accounting for sales-type and direct financing leases for the lessor. This guidance is effective for annual and interim periods beginning after December 15, 2018. Early adoption is permitted and must be adopted using a modified retrospective transition. We are currently evaluating the impact of this new standard on our consolidated financial statements, the date of adoption, and the transition approach to implement the new guidance.

Internal control over financial reporting

Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements in accordance with GAAP. Prior to this offering, we were a private company and we are currently in the process of reviewing, documenting and testing our internal control over financial reporting. In connection with the audit of our consolidated financial statements as of and for the years ended December 31, 2015, 2014 and 2013, we identified material weaknesses in our internal control over financial reporting. See “Risk factors—We have identified material weaknesses in our internal control over financial reporting. If we are unable to remediate these material weaknesses, or if we experience additional material weaknesses in the future or otherwise fail to maintain an effective system of internal controls, we may not be able to accurately or timely report our financial condition or results of operations, or comply with the accounting and reporting requirements applicable to public companies, which may adversely affect investor confidence in us and, as a result, the value of our common stock.”

We have not performed an evaluation of our internal control over financial reporting, such as required by Section 404 of the Sarbanes-Oxley Act, nor have we engaged an independent registered accounting firm to perform an audit of our internal control over financial reporting as of any balance sheet date or for any period reported in our financial statements. Presently, we are not an accelerated filer, as such term is defined by Rule 12b-2 of the Exchange Act, and therefore, our management is not presently required to perform an annual assessment of the effectiveness of our internal control over financial reporting. This requirement will first apply to our second Annual Report on Form 10-K. Our independent public registered accounting firm will first be required to attest to the effectiveness of our internal control over financial reporting for our Annual Report on Form 10-K for the first year we are no longer an “emerging growth company”.

Critical accounting policies and estimates

The preparation of the consolidated financial statements requires us to make assumptions, estimates and judgments that affect the reported amounts of assets and liabilities, the disclosures of contingent assets and liabilities as of the date of the consolidated financial statements, and the reported amounts of sales and expenses during the reporting periods. Certain of our more critical accounting policies require the application of significant judgment by management in selecting the appropriate assumptions for calculating financial estimates. By their nature, these judgments are subject to an inherent degree of uncertainty. On an ongoing basis, we evaluate our judgments, including those related to inventories, recoverability of long-lived assets and the fair value of our common stock. We use historical experience and other assumptions as the basis for our judgments and making these estimates. Because future events and their effects cannot be determined with precision, actual results could differ significantly from these estimates. Any changes in those estimates will be reflected in our consolidated financial statements as they occur. While our significant accounting policies are more fully described in Note 1 to our consolidated financial statements included elsewhere in this prospectus, we believe that the following accounting policies and estimates are most critical to a full understanding and evaluation of our reported financial results. The critical accounting policies addressed below reflect our most significant judgments and estimates used in the preparation of our consolidated financial statements.

Revenue recognition

Sale of products

Product sales directly to the customer are primarily generated through the sale of external bone growth stimulators, HA viscosupplementation therapies and bone graft substitutes. We present revenue on a net basis, excluding taxes collected from customers and remitted to governmental authorities, as well as discounts, rebates, certain distribution fees and contractual allowances when recording revenue.

We sell products directly to healthcare institutions, patients, distributors and dealers. Direct sales account for the majority of net sales. Revenue is recognized when title and risk of loss of the product passes to the purchaser, once all of the following conditions are satisfied: (1) there is persuasive evidence of an arrangement; (2) the collection of the fees is reasonably assured and (3) the arrangement consideration is fixed or determinable.

Product sales to third-party payors are recognized in accordance with specific healthcare accounting guidance. Revenue is reported on a net basis, in consideration of adjustments to the expected cash received. The adjustments include estimates for coverage and insurance adjustments which are based on historical knowledge and are recorded as a reduction to revenue.

For certain products, we offer chargeback rebates to wholesalers who supply their customers with our products. We have preexisting contracts with established rates with many of the wholesalers' customers who require the wholesalers to sell our product at their established rate. Accordingly we record an adjustment to revenue at the time of sale to estimate the future chargeback, based on volume of purchases, inventory holdings, and historical data of rebates requested for each wholesaler. All liabilities associated with charge-back rebates are reviewed regularly taking into consideration known market events and trends as well as internal and external historical data for the industry and customer.

Revenue recognition for bone growth stimulators

Revenue from third-party payors, such as insurance companies or managed care providers is recognized when a prescription is received, patient benefits have been verified, the product is provided and the required paperwork is executed. Such revenue is recorded at the contracted rate at the time of sale, or an estimated price based on the information available and historical results

Revenue from a patient is negotiated with each individual and recognized when a prescription is received, the product is provided and the required paperwork is executed. On occasion, product is provided to the patient at no cost through our Patient Assistance Program and no revenue is recognized. The full selling price is expected to be collected unless the customer defaults on payment.

Revenue recognition for HA viscosupplementation therapies

Revenue from customers such as a healthcare provider, distribution center or specialty pharmacy is recognized when an order is received and the product is shipped or delivered to the customer location. Revenue is recognized at the contracted price.

We offer retrospective discounts that are linked to the volume of purchases and may increase at negotiated thresholds within a contract buying period. We record an estimated discount and returns allowance based on historical, forecasted or negotiated results, the type of customer, and the specifics of each arrangement.

Revenue recognition for bone graft substitutes

Revenue from customers such as a healthcare provider is recognized when we are notified that a surgery was performed and the consigned inventory was consumed. Revenue is recognized at the contracted price.

Use of Estimates

The preparation of the consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, revenues and expenses during the period, as well as disclosures of contingent assets and liabilities at the date of the financial statements. Actual results may differ from these estimates under different assumptions or conditions.

Fair value

We record certain assets and liabilities at fair value. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants at the measurement date. A three-level fair value hierarchy that prioritizes the inputs used to measure fair value is described below. This hierarchy requires entities to maximize the use of observable inputs and minimize the use of unobservable inputs.

The three levels of inputs used to measure fair value are as follows:

Level 1—Quoted prices in active markets for identical assets or liabilities;

Level 2—Observable inputs other than quoted prices included within Level 1, such as quoted prices for similar assets and liabilities in active markets; quoted prices for identical or similar assets and liabilities in markets that are not active; or other inputs that are observable or can be corroborated by observable market data; and

Level 3—Unobservable inputs that are supported by little or no market data. This includes certain pricing models, discounted cash flow methodologies and similar techniques that use significant unobservable inputs.

Accounts receivable and allowances

Accounts receivable are amounts due from customers and payors that are recorded at net realizable value for product sold in the ordinary course of business. We maintain a contractual allowance and an allowance for doubtful accounts.

The allowance is offset against revenue for each sale to a contracted and non-contracted payor so that net sales and the resulting accounts receivable are recorded at the estimated determinable price at the time of the sale. When evaluating the adequacy of the contractual allowance, we analyze pricing available for certain products as well as historical results.

The allowance for doubtful accounts is based on the assessment of the collectability of specific customer accounts and the aging of the accounts receivable. When evaluating the adequacy of this allowance, we analyze accounts receivable, historical bad debts, customer concentrations, customer solvency, current economic and geographic trends, and changes in customer payment terms and practices. Changes to the allowance for doubtful accounts are recorded in selling, general and administrative expense in the consolidated statements of operations and comprehensive loss. Our reserve levels have generally been sufficient to cover credit losses.

Inventory

We value our inventory at the lower of cost or market and adjust for the value of inventory that is estimated to be excess, obsolete or otherwise unmarketable. Cost is determined using the first-in, first-out, or FIFO, method. We record allowances for excess and obsolete inventory based on historical and estimated future demand and market conditions. We plan for the production of our products based on expected market demand and expected product launches. A significant decrease in demand or change in new product launch timing could result in an increase in the amount of excess inventory quantities on hand.

Business combinations

Identifiable assets acquired, the liabilities assumed and any noncontrolling interest in the acquiree resulting from a business combination are recorded at their estimated fair values on the date of the acquisition. Third-party valuations are generally completed for intangible assets in a business combination using a discounted cash flow analysis, incorporating various assumptions. Goodwill represents the excess of the purchase price

over the estimated fair value of the net assets acquired, including the amount assigned to identifiable intangible assets. The most significant estimates and assumptions inherent in a discounted cash flow analysis include the amount and timing of projected future cash flows, the discount rate used to measure the risks inherent in the future cash flows, the assessment of the asset's life cycle, and the competitive and other trends impacting the asset, including consideration of technical, legal, regulatory, economic and other factors. Each of these factors and assumptions can significantly affect the value of the intangible asset.

Acquired in-process research and development, or IPR&D, is the fair value of projects for which the related products have not received regulatory approval and have no alternative future use and is capitalized as an indefinite-lived intangible asset. Due to inherent uncertainty related to R&D, there is no assurance that actual results will not differ materially from the assumptions used in the discounted cash flow model. Additionally, there are risks including, but not limited to, delay or failure to receive regulatory requirements to conduct clinical trials, required market clearances, or patent issuance, and that the R&D project does not result in a successful commercial product. Development costs incurred after the acquisition are expensed as incurred. Upon receipt of regulatory approval of the related technology or product, the indefinite-lived intangible asset is then accounted for as a finite-lived intangible asset and amortized on a straight-line basis over its estimated useful life. If the R&D project is abandoned, the indefinite-lived asset is charged to expense.

We recognize contingent consideration liabilities resulting from business combinations at estimated fair value on the acquisition date. The contingent consideration liabilities are revalued subsequent to the acquisition date with changes in fair value recognized in earnings. Contingent payments related to acquisitions consist of development, regulatory and commercial milestone payments, and are valued using discounted cash flow techniques. Significant estimates and assumptions required for these valuations include the probability of achieving regulatory approval under specified time frames, product sales projections under various scenarios and discount rates used to calculate the present value of the estimated payments. Changes in the fair value of contingent consideration liabilities result from changes in these estimates and assumptions. Significant judgment is employed in determining the appropriateness of the estimates and assumptions as of the acquisition date and in post-acquisition periods.

Impairment

We evaluate goodwill and other indefinite-lived intangible assets for impairment annually during the fourth quarter, or more frequently if events or changes in circumstances indicate that the asset might be impaired. We have identified Advance Healing Therapies—U.S., Advance Healing Therapies—International and Surgical as our three reporting units and analyze each reporting unit separately in our goodwill impairment evaluation. We used independent third-party valuation specialists in 2013, 2014 and 2015 to perform the two step goodwill impairment test for each reporting unit on an annual basis. Management is responsible for many of the inputs and the review of all conclusions. All other indefinite-lived intangible assets are analyzed qualitatively by management to determine if it is more likely than not for an impairment to exist. If that criteria is met, a quantitative analysis is performed to determine if an impairment exists.

Goodwill

We use independent third-party valuation specialists to perform our goodwill impairment testing. During the first step, the estimated fair value of goodwill is compared to the carrying value at the reporting unit level. Fair values of the reporting units are estimated using acceptable valuation methods including the income approach, which incorporates the use of a discounted free cash flow analysis, and the market approach, which incorporates the use of revenue and earnings multiples based on market data. The discounted free cash flow analyses are based on significant judgments, including the current operating budgets, estimated long-term growth projections and future forecasts for each reporting unit. Future cash flows are discounted based on a

market comparable weighted average cost of capital rate for each reporting unit. The discount rates used in the discounted free cash flow analyses reflect the risks inherent in the expected future cash flows generated by the respective intangible assets. Risks impacting the discount rate include market risk, industry risk and a small company premium. Bioventus LLC has never triggered step two of the goodwill impairment test since the initial acquisition of goodwill in 2012.

If the fair value of any of the reporting units is less than the carrying value, a second step is performed which compares the implied fair value of the reporting unit's goodwill to the carrying value. The fair value of the goodwill is determined based on the difference between the fair value of the reporting unit and the net fair value of the identifiable assets and liabilities of the reporting unit or carrying value of the indefinite-lived intangible asset. If the implied fair value of the goodwill or indefinite-lived intangible assets is less than the carrying value, the difference is recognized as an impairment charge. Significant judgments inherent in this analysis include estimating the amount and timing of future cash flows and the selection of appropriate discount rates, royalty rate and long-term growth rate assumptions. Changes in these estimates and assumptions could materially affect the determination of fair value for each reporting unit and for some of the reporting units and could result in an impairment charge, which could be material to our financial position and results of operations.

Other indefinite-lived intangible assets

During the fourth quarter of 2015, in connection with the acquisition of BioStructures, we acquired IPR&D with a preliminary estimated fair value of \$23.0 million as of the acquisition date. We will continue to evaluate the acquired IPR&D for impairment on an annual basis and whenever events or circumstances change that would indicate that the carrying amount was impaired.

Equity compensation

We account for equity compensation, which requires the measurement and recognition of compensation expense for all equity-based awards made to employees and directors based on estimated fair values on the grant date. Bioventus LLC has issued profit interest units that share in any future profit for the company without any additional voting rights. Bioventus LLC issued profit interest units through its MIP and phantom profits interest units through its Phantom Plan. The MIP units contain a put option that allow the employee to exercise that option at an amount other than fair value (EBITDA times a fixed multiple). Therefore these units are classified as a liability until the put option expires. The Phantom Plan was amended in May 2015. Units issued prior to the amendment do not contain a put option or other features and are equity classified. Units issued subsequent to the amendment contain a put option and are classified as a liability. Liability awards under the MIP and Phantom Plan are marked to fair value at each reporting period.

We estimate the fair value of profit interests granted using the Monte Carlo option pricing model. We estimate when and if performance-based awards will be earned. If an award is not considered probable of being earned, no amount of equity-based compensation expense is recognized. If the award is deemed probable of being earned, related equity-based compensation expense is recorded. The fair value of an award ultimately expected to vest is recognized as an expense, net of forfeitures, over the requisite service periods in our consolidated statements of operations, which is generally the vesting period of the award.

The Monte Carlo option pricing model requires the input of certain subjective assumptions and the application of judgment in determining the fair value of the awards. The most significant assumptions and judgments include the expected volatility, risk-free interest rate, the expected dividend yield, and the expected term of the awards. In addition, the recognition of equity-based compensation expense is impacted by our estimated forfeiture rates, which is based on an analysis of historical forfeitures. We will continue to evaluate our forfeiture rate, considering our actual forfeiture experience, analysis of employee turnover and other factors.

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The assumptions used in our option pricing model represent management's best estimates. If factors change and different assumptions are used, our equity-based compensation expense could be materially different in the future. The key assumptions included in the model are as follows:

- Expected volatility—We determine the expected price volatility based on the historical volatilities of our peer group as we do not have a sufficient trading history for our units. Industry peers consist of several public companies in the medical technology industry similar to us in size, stage of life cycle and financial leverage. We intend to continue to consistently apply this process using the same or similar public companies until a sufficient amount of historical information regarding the volatility of our own stock price becomes available, or unless circumstances change such that the identified companies are no longer similar to us, in which case, more suitable companies whose share prices are publicly available would be utilized in the calculation.
- Risk-free interest rate—We base the risk-free interest rate on the yield curve of a zero-coupon U.S. Treasury bond with a maturity equal to the expected term of the option on the grant date.
- Expected dividend yield—We have not previously issued dividends and do not anticipate paying dividends in the foreseeable future. Therefore, we used a dividend rate of zero based on our expectation of additional dividends.
- Expected term—The amount of time that the equity-based awards are expected to be outstanding.

The assumptions utilized to determine the fair value of the awards for the years ended December 31 are indicated in the following table:

	Year ended December 31,		
	2013	2014	2015
Expected volatility	42.1%	40.7%	50.0%
Risk-free interest rate	1.3%	1.3%	0.4%
Expected dividend yield	0%	0%	0%
Expected term	5	4	0.6

Additionally, the calculation requires an estimate of fair value of the units underlying our equity-based awards to perform our Monte Carlo calculation. Prior to our initial public offering, in the absence of a public trading market, our Board of Directors determined a reasonable estimate of the then-current fair value of our equity awards for purposes of granting equity-based compensation based on input from management and valuation reports prepared by an independent third-party valuation specialist. We determined the fair value of our equity utilizing methodologies, approaches and assumptions consistent with the American Institute of Certified Public Accountants Practice Aid, "Valuation of Privately-Held-Company Equity Securities Issued as Compensation," which we refer to as the AICPA Practice Aid. In addition, we exercised judgment in evaluating and assessing the foregoing based on several factors including:

- the nature and history of our business;
- our historical operating and financial results;
- the market value of companies that are engaged in a similar business to ours;
- the lack of marketability of our common stock;
- the price at which shares of our equity instruments have been sold;
- the overall inherent risks associated with our business at the time stock option grants or warrants were approved; and
- the overall equity market conditions and general economic trends.

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We will continue to accumulate additional data and use judgment in evaluating each assumption on a prospective basis. As of December 31, 2015, we had \$6.8 million of unrecognized equity-based compensation expense, net of estimated forfeitures, related to profit interest units and phantom profit interest units and that is expected to be recognized over a weighted-average period of four and five years for the MIP and Phantom Plan, respectively.

Income taxes

Bioventus LLC is currently a partnership for U.S. federal income tax purposes. As a partnership, taxable income or loss is includable in the income tax returns of its members. The Company also has a subsidiary that operates as a C corporation that is subject to income tax requirements and international operations that are subject to foreign income tax requirements. Additionally, Bioventus LLC is liable for various other state and local taxes. After consummation of this offering, we will become subject to U.S. federal, state and local income taxes with respect to our allocable share of any taxable income of Bioventus LLC and will be taxed at the prevailing corporate tax rates. We recognize the effect of income tax positions only if these positions are more likely than not to be sustained. Changes in recognition or measurement are reflected in the period in which the change in judgment occurs. The pro forma consolidated financial statements included in this prospectus do not include a provision for federal income taxes since each of our pro forma statements of operations have a pro forma net loss. In the future, if redemption or exchange of Bioventus LLC Units for shares of our Class A common stock or cash occurs and if we determine that such tax benefits are likely to be realized by us, we will record (i) a deferred tax asset based on the step-up in basis resulting from the exchange and the then effective income tax rate, (ii) a payable to related party in respect of the corresponding 85% payment under the Tax Receivable Agreement and (iii) a tax benefit based on the net difference between (i) and (ii). As cash tax savings are realized by us, the deferred tax asset will be reduced, and the payments made under the Tax Receivable Agreement will reduce the payable to related party.

Long-lived assets

Property and equipment are stated at cost and are depreciated using the straight-line method over the shorter of the asset's estimated useful life, or the lease term if related to leased property, as follows in years:

Computer software and hardware	3 – 5
Leasehold improvements	5.5 – 7.5
Machinery and equipment	5 – 7
Furniture and fixtures	4 – 7

Finite-lived identifiable intangible assets are amortized using the straight-line method over their estimated remaining weighted average useful lives as follows in years:

Intellectual property	17.2
Distribution rights	13.5
Customer relationships	8.9
Developed technology	1.8
Non-compete agreements	3.6

We capitalize costs incurred from third-party vendors for software design, configuration, coding and testing and amortizes these costs on a straight-line basis over the estimated useful life of the product, not to exceed three years. We do not capitalize costs that are incurred internally for labor or that are precluded from capitalization in authoritative guidance, such as preliminary project phase costs, planning, oversight, process re-engineering costs, training costs or data conversion costs.

The carrying values of property, equipment, intangible and other long-lived assets are reviewed for recoverability if the facts and circumstances suggest that a potential impairment may have occurred. If this review indicates that carrying values may not be recoverable, as determined based on undiscounted cash flow projections, we will perform an assessment to determine if an impairment charge is required to reduce carrying values to estimated fair value. There were no events, facts or circumstances for the years ended December 31, 2014 and 2013 that resulted in any impairment charges to our property, equipment, intangible or other long-lived assets.

JOBS Act

We qualify as an “emerging growth company” pursuant to the provisions of the JOBS Act. For as long as we are an “emerging growth company,” we may take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not “emerging growth companies,” including, but not limited to, not being required to comply with the auditor attestation requirements of Section 404(b) of the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, reduced disclosure obligations relating to the presentation of financial statements in Management’s discussion and analysis of financial condition and results of operations and exemptions from the requirements of holding advisory “say-on-pay” votes on executive compensation and shareholder advisory votes on golden parachute compensation. We have availed ourselves of the reduced reporting obligations and executive compensation disclosure in this prospectus, and expect to continue to avail ourselves of the reduced reporting obligations available to emerging growth companies in future filings.

In addition, an emerging growth company can delay its adoption of certain accounting standards until those standards would otherwise apply to private companies. However, we are choosing to “opt out” of such extended transition period, and as a result, we plan to comply with any new or revised accounting standards on the relevant dates on which non-emerging growth companies must adopt such standards. Section 107 of the JOBS Act provides that our decision to opt out of the extended transition period for complying with new or revised accounting standards is irrevocable.

We will continue to qualify as an emerging growth company until the earliest of:

- The last day of our fiscal year following the fifth anniversary of the date of our IPO;
- The last day of our fiscal year in which we have annual gross revenues of \$1.0 billion or more;
- The date on which we have, during the previous three-year period, issued more than \$1.0 billion in non-convertible debt;
- The date on which we are deemed to be a “large accelerated filer”, which will occur at such time as we (1) have an aggregate worldwide market value of common equity securities held by non-affiliates of \$700 million or more as of the last business day of our most recently completed second quarter, (2) have been required to file annual and quarterly reports under the Exchange Act for a period of at least 12 months and (3) have filed at least one annual report pursuant to the Exchange Act.

Industry

Orthobiologics are used to accelerate the healing of, or reduce pain experienced in, bones, joints or damaged musculoskeletal tissue by harnessing the body's natural healing processes. We believe the current U.S. annual total market opportunity for orthobiologic products is approximately \$3.0 billion and will grow at approximately 4–5% annually for the next five to seven years. There is additional opportunity outside the United States, particularly in HA viscosupplementation. These estimates for the U.S. market include non-surgical products, such as long bone growth stimulation and HA viscosupplementation therapies; surgical bone graft substitute products, such as allografts, DBMs, synthetics, stem cells, BMPs/growth factors; spinal stimulation; cell therapies and orthopedic cartilage repair products. Market growth is being driven by improving technologies and unaddressed market needs, an aging population, increased incidence of spinal disorders driving the need for spinal fusion surgery and increased incidence of osteoarthritis leading to the need for HA viscosupplementation therapy or surgery.

The chart below summarizes the U.S. orthobiologics market, key product categories and our products in each of those categories:

	U.S current market size (in millions)	2014–2021 Market CAGR	Primary applications	Bioventus product offerings (1)
Non-surgical				
Long bone stimulation	\$ 300	1.9%	• Fracture repair	• Exogen
HA viscosupplementation	\$ 873	6.1%	• Alleviation of osteoarthritis pain through single, three or five injection regimens	• Supartz FX, Durolane+, GelSyn-3*
Subtotal	\$ 1,123			
Surgical—Bone graft substitutes				
Allografts	\$ 132	(0.9)%	• Spinal fusion, trauma and other bone repair applications	• Purebone
DBMs	\$ 365	2.3%	• Spinal fusion, trauma and other bone repair applications	• Exponent
Synthetics	\$ 361	5.7%	• Spinal fusion, trauma and other bone repair applications	• Signafuse, Interface, Osteoplus
Stem cells	\$ 178	16.9%	• Spinal fusion, trauma and other bone repair applications	• No offerings
BMPs/growth factors	\$ 372	0.6%	• Spinal fusion, trauma and other bone repair applications	• OsteoAMP
Subtotal	\$ 1,407	5.2%		
Other markets				
Spinal stimulation	\$ 250	N/A	• Spinal fusion	• No offerings
Cell therapy	\$ 143	4.0%	• Injectable platelet-rich plasma used for soft tissue repair	• No offerings
Orthopedic cartilage repair	\$ 92	3.8%	• Autograft-, allograft- and microfracture-based cartilage repair	• No offerings
Subtotal	\$ 485			
Total	\$ 3,015			

Source: iData 2015 U.S. Market for Orthopedic Biomaterials, except spinal stimulation data.

(1) See "Business" for additional information regarding our products.

+ We do not market this product in the United States.

* We expect to launch GelSyn-3 in the United States in the second half of 2016.

Orthobiologic treatment of musculoskeletal conditions

Long bone stimulation for bone fractures

Fractures, also known as broken bones, occur when there is a high force or impact put on a bone, most commonly from trauma resulting from sports injuries, car accidents, falls or from osteoporosis, which is bone weakening due to aging. Immediately following a fracture, patients are treated to realign the fractured bone ends. If possible or required, the affected limb is immobilized using plaster or a splint. In some cases, fractures require surgical fixation with devices like screws, plates, rods and frames. X-rays, CT and MRI imaging are utilized to verify alignment of the bone and to assess progress towards healing.

A fracture is considered a fresh fracture during the first seven days after the fracture occurs. After a fracture is treated, new bone tissue begins to form and connect the broken pieces. With modern treatment methods, most fractures heal spontaneously over the course of several months following injury. However, some fractures fail to heal even when they receive the best surgical or non-surgical treatments. In clinical literature, it is estimated that five to ten percent of all fractures fail to heal, often in patients that have compromised health from old age, obesity, diabetes or smoking. An unhealed fracture can result in continued patient morbidity and require additional treatment. A nonunion is considered to be established when the fracture site shows no visibly progressive signs of healing. Long bone fractures, or fractures in the humerus, ulna, radius, femur, tibia and fibula, can be prone to nonunion, with tibial fractures accounting for the most common long bone nonunions. Mechanical instability due to inadequate immobilization, loss or reduction of adequate blood supply to the fracture site and gaps in bone-to-bone contact are the most important factors leading to a nonunion. Symptoms of nonunion are swelling, pain, tenderness, deformity and difficulty bearing weight.

Patients with nonunions do not usually require surgery unless they have particular indications, such as an unstable or misaligned fracture, or a larger inter-fragment gap. Some nonunions and fresh fractures of the tibia and radius can be treated non-surgically using a bone stimulation device that delivers low-intensity pulsed ultrasound or pulsed electromagnetic waves to the fracture site to stimulate healing. The patient places the stimulator on the skin over the nonunion for 20 minutes to several hours daily, depending on the technology, for a period typically of up to six months for the most difficult fractures. Daily treatment is recommended for peak effectiveness.

We estimate the total long bone stimulation market to be approximately \$300 million and to grow by 1.9% annually with approximately 90,000 fractures treated with long bone stimulation devices per year. According to Life Science Intelligence, fractures account for an estimated 10.2 million visits a year to hospitals and physician offices in the United States, with fractures of the lower limbs accounting for approximately 50% of visits, or 5.0 million visits, followed by those of the hand and fingers, approximately 2.9 million visits and the radius or ulna, approximately 2.2 million visits.

HA viscosupplementation

HA is a major component of the extracellular matrix in almost all living tissue which is produced naturally by the human body and is concentrated in the joints, cartilage and skin. HA is a natural lubricant and a major component of synovial fluid and articular cartilage and has an important anti-inflammatory role, causing inhibition of tissue destruction and facilitating tissue healing. Viscosupplementation is a procedure in which HA is injected into the body. In the United States, the FDA has approved the use of HA injections for treatment of pain caused by knee osteoarthritis, as well as other non-orthopedic applications. Outside of the United States, HA is used for other orthopedic indications in addition to the knee, such as the hip and shoulder, as well as other non-orthopedic applications.

Knee osteoarthritis is a degenerative condition that is chronic in nature and caused by gradual breakdown and destruction of the cartilage in the knee. This condition develops over years and is often found in patients who have had an infection or injury, or those who are overweight. The disease causes joint inflammation and results in symptoms that include redness, warmth, swelling, stiffness, tenderness, limited range of motion and pain. As the condition advances, the knee joint gradually loses its ability to regenerate cartilage tissue and the cartilage layer attached to the bone deteriorates to the point where eventually the bone becomes exposed. Knee osteoarthritis is one of the leading causes of disability in people 65 years of age or older, resulting in a major impact on healthcare costs.

Although there is no cure for knee osteoarthritis, several options for conservative treatment exist. These include weight reduction, physiotherapy, physical exercise and braces for functional assistance. Pharmacological therapy is prescribed for pain relief. Among these therapies are ordinary oral analgesics, such as acetaminophen and nonsteroidal anti-inflammatory drugs, topical nonsteroidal anti-inflammatory drugs, and intra-articular corticosteroid injection. However, patients with knee osteoarthritis often have comorbidities such as obesity and hypertension, which precludes the use of such analgesics in these patients. Oral nonsteroidal anti-inflammatory drugs have well-known toxicities and the effects of acetaminophen on knee osteoarthritis symptoms are modest at best. Although intra-articular corticosteroid injection is generally considered to have a positive safety profile, it has been shown to cause a transient increase in blood glucose, which may be a concern for diabetic patients. These injections often provide a relatively short period of effective relief.

The treatment regimen for HA viscosupplementation therapies usually involves a series of injections in the knee, with the number of injections depending on the labelling of the product used and the patient. Pain relief is usually obtained by four to twelve weeks and the effect has been shown to last for up to several months. Injection schedules vary from one to five injections and patients are generally advised to repeat the injection schedule if they are satisfied with the previous injection course. Recent studies have shown that HA injection is associated with a significant delay in total knee replacement. For example, patients who received no HA viscosupplementation therapy had a median time-to-total knee replacement of approximately 0.3 years. With one course of HA viscosupplementation therapy, the median time to total knee replacement increased to more than one year and with more than five courses this number increased to 3.6 years. Thus, the dose-response relationship between the number of HA courses and time-to-total knee replacement suggests there is a significant clinical benefit from HA injections. Potential side effects of knee osteoarthritis injections include joint swelling and pain.

Knee osteoarthritis is one of five leading causes of disability among U.S. adults and costs due to hospitalizations for total knee replacements in patients with severe knee osteoarthritis are estimated to be over \$30 billion annually. We estimate that over 21 million adults age 60 or over suffer from knee osteoarthritis. The Centers for Disease Control and Prevention, or CDC, estimates that one-third of the U.S. population is considered obese and studies have shown that nearly two in three people who are obese will likely develop symptomatic knee osteoarthritis in their lifetime. Further, studies have shown that obese patients were found to have approximately a four to five times greater chance of developing knee osteoarthritis than non-obese patients.

In 2014, there were approximately 1.6 million HA viscosupplementation treatments performed in the United States, with that number expected to grow to approximately 2.2 million treatments in 2020. The market has historically grown as each new entrant brings new sales representatives to further expand an underpenetrated total addressable market. The HA viscosupplementation therapy market is currently approximately \$850–900 million in the United States. The market opportunity for the three injection segment has steadily grown by 3–5% from 2009 and is projected to grow at this rate through 2021. We intend to launch a three injection therapy, GelSyn-3, in the second half of 2016. The single injection market is growing at 11–15% per year, but the five

injection market is slowly declining. Despite the decline for the five injection market, we continue to consider it a viable market as we believe there is a pool of physicians that continue to believe in multi-injection treatment protocols, as well as those patients that simply do not respond to single or three injection treatment courses. The overall HA injection market in the United States is projected to grow by 6.1% over the period from 2014—2021. The European market, valued at €265.6 million, is expected to be approximately flat over the period from 2014—2021.

Bone graft substitutes in spinal fusion and other procedures

Bone grafting is a surgical procedure used to fuse spinal bones, replace missing bone, fix bones that are damaged from trauma or problem joints, or to facilitate growing bone around an implanted device, such as a total knee replacement. The bone used in a bone graft can come from a particular patient's own body which is referred to as autograft, or from a donor which is referred to as allograft, or can be entirely man-made. Most bone grafts are expected to be reabsorbed and replaced as the natural bone heals over a few months.

In some spinal fusion procedures, parts of the spinal bones are removed to facilitate the procedure. The removed bone can be saved and used as the graft, known as local autograft. The advantages are that it is the patient's own bone and thus will not be rejected and it avoids the need to harvest bone from elsewhere in the body. The disadvantage is that there is a limited amount of bone that can be harvested from the small spinal bones, especially as patients get older and their bones tend to thin and weaken.

An autograft can also be harvested from other parts of the patient's body such as the hip, rib or other areas of the spine. Iliac crest bone taken from a patient's hip has been considered the preferred bone graft material to promote successful fusion because of its graft characteristics and because it does not carry the risk of rejection or disease transmission. However, the harvesting of autograft is associated with complication rates as high as 30%. Serious complications include increased risk of subsequent pelvic fracture, peripheral nerve dysfunction causing numbness or weakness and infection. Additional difficulties with the procedure include increased operative time and blood loss and limited supply of bone graft and increased postoperative pain. However, despite these potential adverse events, autograft procedures are still performed regularly with approximately 190,000 performed in the United States in 2014. The major drawback to the use of autologous bone is graft-site morbidity and its major complications such as deep infection, iliac fracture, chronic pain and arterial injury, among others.

To avoid the morbidity of harvesting autograft, significant time and expense has been dedicated to the development and commercialization of bone graft substitutes for orthopedic applications. There are several bone graft substitutes that have been developed and commercialized, including BMPs/growth factors, stem cells, synthetics, DMBs and allografts.

Different bone graft substitutes are often combined in a procedure to achieve the key elements of successful bone regeneration, which are: osteoinduction, osteoconduction and osteogenesis. Osteoinduction refers to the ability of an implant to stimulate bone formation based primarily on soluble growth factor signals. Osteoconduction refers to the ability of an implant to promote bone formation based primarily on a physical matrix or scaffold, when placed adjacent to viable bone tissue. Osteogenesis refers to the ability to promote new bone formation based primarily on the viable stem cells contained within the bone graft. Bone graft substitutes, depending on their design, can be used entirely in place of autograft or by extending the volume of autograft by combining it with the bone graft substitute.

Surgeons utilize bone graft substitutes in spinal fusion, orthopedic trauma, foot and ankle, hand and wrist, hip and knee and craniomaxillofacial surgeries. Our Surgical products are primarily used in spinal fusion and orthopedic trauma surgeries. Below is a brief description of these applications:

- *Spinal fusion surgery.* Spinal fusion surgery is indicated for several conditions, including spine trauma, tumors and degenerative disease in the cervical, thoracic and lumbar sections of the spine. The objective of

spinal fusion is to create an environment that will allow bone to form a solid bony bridge across the involved spinal segments. In 2014, bone graft substitutes were used in approximately 479,000 out of 575,000 spinal fusion procedures and the number of procedures using bone graft substitutes is expected to grow at a five year CAGR of approximately 7.8%.

- **Trauma.** Most uses of bone graft substitutes in trauma are for fresh fracture cases, rather than nonunion, due to the nature of these injuries. A significant amount of bone graft substitute is required for a trauma procedure and thus this indication represents a large market of approximately \$175 million in 2014 with approximately 77,000 procedures performed. The number of trauma bone graft substitute procedures performed is expected to grow at a five year CAGR of approximately 5.5%.
- **Other.** Bone graft substitutes are used in foot and ankle surgeries, as well as hand and wrist procedures to fill defects, span bone voids and correct alignment; in hip and knee procedures when there is bone lost to disease, infection or injury, or if the bone needs assistance integrating surgically implanted devices; and in craniomaxillofacial surgeries to reduce fusion times and in conjunction with the use of metal plates. In total, there were approximately 250,000 of these procedures performed in 2014 and the number of procedures is expected to grow at a five year CAGR of 7.1%.

Allografts. Allograft bone is harvested from cadaveric femora or iliac crests. Depending on the preparation process, allograft exhibits osteoconductive and sometimes osteoinductive properties. The preparation process can leave allograft devoid of many of the growth factors that foster osteoinduction. Allograft lacks osteogenic properties because of the absence of viable stem cells. It comes in a variety of forms including freeze-dried, fresh-frozen, morselized and cancellous chips. There were approximately 230,000 procedures utilizing allograft performed in 2014. Compared to other bone graft substitutes, allograft is less expensive and more readily available.

Demineralized bone matrix. DBM is an allograft material obtained from cadaveric bone that is frozen, freeze-dried and devoid of mineral content as a result of an acid extraction process that isolates type-1 collagen proteins and growth factors, including BMP. The resulting matrix is combined with a variety of carrier materials to produce the ultimate commercial formulation. Though DBM lacks structural strength, it provides osteoconductive and osteoinductive properties, which can make it an effective bone graft substitute for spinal fusion and other orthopedic procedures. The structural matrix consisting of type-1 collagen provides osteoconductive activity. Varying degrees of osteoinductive activity results from the significant variation in relatively small concentrations of growth factors and the carrier materials chosen. DBM has excellent handling characteristics and is available in multiple forms, including putty, gel, powder, fiber, flexible sheets or mixed with cortical chips. The main disadvantage of DBM is the inherently variable osteoinductive properties between products that are present due to the differences in demineralization process, storage, washing procedure, sterilization method and source of the bone among manufacturers. In comparison to standard allograft chips, DBM is more expensive to produce because of demineralization processing, thus commanding a higher average selling price, which is nearly double that of allograft. There were approximately 320,000 procedures involving DBMs in 2014.

Synthetics. Synthetics are produced from ceramics such as hydroxyapatite, beta-tricalcium phosphate and bioactive glass. Synthetics are osteoconductive, biodegradable and non-immunogenic, contain no risk of disease transmission, are readily available in large quantities and are inexpensive to manufacture. Synthetics are neither osteogenic nor osteoinductive. They are designed to have porosity and pore size optimized for bony ingrowth. The rate of resorption is important when considering these products for spinal fusion procedures. Beta-tricalcium phosphate is absorbed over several months and hydroxyapatite is absorbed over the course of years. Bioactive glass is a group of synthetic silicate-based materials, characterized by their bioactivity and their unique bone-bonding properties. Bioactive glass is composed mainly of silica, sodium oxide, calcium oxide and phosphates. The bone-bonding reaction results from a sequence of reactions in the glass and its surface.

After long-term implantation, this biological mineral layer is partially replaced with bone. The porosity of bioactive glass provides a scaffold on which newly-formed bone can be deposited. Synthetics can be fashioned to many different sizes and shapes. A disadvantage of synthetics is that they possess limited shear and compressive strength. There were approximately 275,000 procedures involving synthetics in 2014. The average selling price of synthetics is slightly more than DBM and more than twice the price of an allograft.

Stem cells. Current commercial stem cell bone graft substitutes are obtained from cadaveric cancellous bone, in which selective cell preservation is achieved by tissue processing and washing, with the addition of DBM. The resulting bone graft substitute contains viable multipotent adult stem cells, known as mesenchymal stem cells. Stem cell therapies are usually costly, with the average selling price over six to seven times that of allograft. Despite the increased interest in this space by the academic community and some surgeons, doubts still remain as to whether or not stem cells will emerge as a viable bone graft substitute. We believe there is currently limited clinical data to support their use. There were approximately 75,000 stem cell procedures done in 2014.

BMPs/growth factors. In 1965, Dr. Marshal Urist published his landmark discovery that trace amounts of a discrete protein found in DBM was responsible for the formation of new bone tissue in places it would normally not form. A few years later, Dr. Urist and his fellows termed their discovery as BMP. This protein exhibits osteoinductive activity by influencing mesenchymal stem cells through a complex signaling pathway to stimulate osteoblasts, or the cells that secrete the matrix for bone formation, to produce bone. In order to extract BMP from cadaveric bone, the bone matrix must first undergo demineralization, a process whereby the mineral content has been removed. Processing and sterilization methods applied to allograft tissue vary and can lead to constrained yield amounts of BMP and other growth factors found within the actual collagen matrix. Advances in biochemical techniques and the advent of biotechnology eventually allowed for the ability to produce BMP in greater yields. It was the discovery in 1988 by a team headed by Dr. John Wozney at Genetics Institute, a Cambridge, Massachusetts based biotechnology company, that the human gene BMP-2 protein could be cloned using a recombinant DNA biotechnology process that led to the creation of a commercial BMP product. The recombinant manufacturing process allows for easy reproducibility and consistent purity of large amounts of BMP-2. In 1995, Genetics Institute entered into a partnership with Sofamor Danek Group, Inc., later acquired by Medtronic plc, or Medtronic, for the development and commercialization of recombinant human BMP-2, or rhBMP-2.

In July 2002, the FDA approved rhBMP-2, marketed as Infuse, as a bone graft substitute in conjunction with a device implant for single-level anterior lumbar interbody fusion. In 2003, the FDA approved the use of Infuse with another implant for the same indication. Infuse remains the only FDA approved recombinant BMP on the market. The initial success of Infuse with interbody fusion soon led to significant off-label use. By October 2004, Infuse had annualized sales over \$300 million. Although the off-label use of BMP in spinal fusion has been met with radiographic and clinical success, some physicians have raised safety concerns due to reports of rare, but significant complications with its use. Several adverse events from the use of Infuse have been reported in observational clinical studies, including retrograde ejaculation; severe dysphagia, or difficulty in swallowing; ectopic bone formation, or unwanted bone formation occurring in the spinal canal; and potentially, cancer. In 2008, the FDA issued a Public Health Notification to alert clinicians to at least 38 reports received by the agency during the previous four years of serious life-threatening complications associated with the off-label use of Infuse in cervical spine fusion, including swelling of the neck and throat resulting in compression of the airway and other structures. A review of publicly available data suggesting that the risk for adverse events is 10 to 50 times higher than reported in the trial publications raised concerns about the safety of Infuse. These reports have led some clinicians to question the clinical benefits of Infuse relative to patient safety.

In an effort to address this controversy, the Yale University Open Data Access project team invited Medtronic to provide full data from all of its clinical trials of Infuse to allow independent analysis and interpretation. In June 2013, the first two systematic reviews and meta-analyses from this collaboration were reported in the *Annals of*

Internal Medicine. The reports had four important findings. First, in aggregate, the data showed that fusion rates with Infuse were similar to those compared to autograft iliac crest bone graft. Second, both Infuse and iliac crest bone graft were associated with similar rates of retrograde ejaculation and neurological complications when used in anterior interbody lumbar fusion or posterolateral lumbar fusion, leading to the conclusion that these complications were not associated with the graft material used. Third, there was clear evidence that Infuse usage leads to high rates of complication in anterior cervical procedures and high rates of ectopic bone formation in posterior lumbar interbody procedures. Fourth, although a statistically significant higher risk of cancer distant from the site of implant of Infuse was observed with the use of Infuse after 24 months, more research was needed to provide more reliable estimates of risk of cancer.

Many of the complications related to the off label use of Infuse can be explained by the uncontrolled release of high doses of the BMP protein at the site of implantation. The average length of time during which BMPs reside at the repair site in solution is extremely short. For this reason, a carrier molecule is required to localize the protein at the site of the repair for the appropriate amount of time. The Infuse formulation delivers BMP-2 in an absorbable collagen sponge placed in an interbody cage for lumbar interbody spine fusions and with the absorbable collagen sponge alone for open tibia fracture repair. Although an absorbable collagen sponge meets many of the requirements for a carrier, release of BMP from the sponge is rapid, particularly in the first 24 hours, as opposed to the more ideal two to three week timeframe required for bone repair in humans. The consequences of rapid and uncontrolled BMP release are associated to some degree with the observations of ectopic bone formation, postoperative soft tissue swelling, transient fluid formation, and transient bone resorption observed with the use of Infuse. Rapid release of higher doses of BMP from non-optimized carriers also results in the potential for higher acute systemic exposure of BMP following implantation, and has been linked to the association of BMPs with a potential increase in cancer risk at distant sites.

Despite safety concerns and an average selling price of eight to ten times that of allograft, Infuse generated sales of approximately \$372 million in 2014, significantly more than any other bone graft substitute on the market. In December 2015, Medtronic received FDA PMA supplement approval for three new spinal indications, allowing the marketing of Infuse for use with certain spine implants made of polyetheretherketone in oblique lateral interbody fusion and anterior lumbar interbody fusion procedures. Given the commercial success of Infuse and the willingness of the FDA to expand the product's on-label indications despite the various published safety concerns, we believe there is significant commercial potential for a new BMP product that addresses the safety concerns surrounding rhBMP-2, while maintaining its clinical efficacy in bone formation.

Allogeneic growth factors. Due to reported adverse events, high cost and complications related to the use of rhBMP-2, surgeons are increasingly looking for a viable alternative. Allogeneic growth factors are allogeneic morphogenic proteins that undergo a novel tissue processing technique, utilizing angiogenic, mitogenic and osteoinductive growth factors within marrow cells to naturally bind them to the bone graft being used. In 2009, our allogeneic growth factor, OsteoAMP, was made commercially available by Advanced Biologics. This new allogeneic tissue processing technique has provided a way to access BMPs and other growth factors that are naturally found within bone marrow cells.

Unmet needs / opportunities. We believe the success of stem cells despite limited clinical data, the continued use of autograft despite the morbidity associated with a second procedure and the success of Infuse despite safety issues demonstrate the significant unmet need for highly efficacious products in certain types of surgeries. Therefore, we believe that the addressable market opportunity for bone graft substitutes is potentially significantly larger than the current \$1.4 billion market, as highly efficacious and safe products have the potential to convert a number of procedures away from autografts or lower-cost bone substitutes towards higher upfront cost, but more clinically effective alternatives.

Key dynamics in orthobiologics market

We believe the orthobiologics market is characterized by specific product development, regulatory, sales and marketing and purchasing dynamics that include the following:

- *Lack of focus resulting in limited allocation of resources by existing orthobiologics competitors.* The majority of surgical orthobiologics competitors are focused primarily on spinal fusion or orthopedic hardware including pedicle screws, plates, interbody devices or knee implants. These companies often view surgical orthobiologics as an accessory pull-through product to their larger hardware businesses. In addition, many companies that offer HA viscosupplementation therapies derive a large portion of their sales from other pharmaceutical or surgical products instead. We believe this lack of focus among our competitors leads to limited R&D and sales and marketing activities for their orthobiologics businesses.
- *Increasing regulatory complexity and scrutiny.* Orthobiologics products can be regulated as a drug, a biologic, a medical device, or human tissue, depending on the product and its classification by the FDA. This results in a number of potential regulatory pathways for approval or clearance in order to market these products, including New Drug Application, PMA, Section 361 HCT/P, Biologics License Application, or 510(k). We believe the FDA is increasingly scrutinizing both the regulatory pathway that potential entrants utilize to seek market approval or clearance as well as off-label use of these products.
- *Historical lack of investment in clinical data and clinical education.* Historically, many of the orthobiologic products that have been commercialized have only required 510(k) clearance for products such as synthetics, or regulation as Section 361 HCT/Ps for products such as allografts. These products do not generally require human clinical trials as part of their regulatory pathway to market. Additionally, many competitors have not invested in significant clinical trials to prove the efficacy of their orthobiologics once in market because orthobiologics are often viewed as pull-through products to their core hardware products.
- *Hospitals increasingly favoring end-to-end orthobiologics providers.* Across the medical device industry, hospitals are increasingly consolidating the range of products their physicians utilize in an attempt to control hospital costs. We believe this is especially true within the orthobiologics industry due to the diverse range of available products. We believe that surgeons often lack loyalty to specific orthobiologics products due to the general lack of clinical data and education provided by the companies who market these products and hospitals will increasingly limit the products surgeons have at their disposal in favor of larger end-to-end orthobiologics providers.

As a result of these factors, we believe there is an opportunity for a company to achieve leadership in the global orthobiologics market by focusing on developing and commercializing a broad portfolio of clinically validated, cost-effective products for use both in and out of the surgical suite. Additionally, we believe there is room to grow the worldwide orthobiologics market opportunity beyond its current size, by developing therapies that are superior to, or have a broader label than, existing bone graft substitutes or HA viscosupplementation therapies.

Business

Overview

We are a global medical technology company focused on developing and commercializing innovative and proprietary orthobiologic products for the treatment of patients suffering from a broad array of musculoskeletal conditions. Our products address the growing need for clinically effective, cost efficient and minimally invasive solutions that enhance the body's natural healing processes. For the year ended December 31, 2015, we generated \$253.7 million of net sales. We operate our business through four reportable segments: Active Healing Therapies—U.S., Active Healing Therapies—International, Surgical and BMP.

- *Active Healing Therapies—U.S. and International.* Our Active Healing Therapies segments offer two types of non-surgical products: our market-leading, non-invasive Exogen system for long bone stimulation for fracture healing and hyaluronic acid, or HA, viscosupplementation therapies for osteoarthritis pain relief. Our Exogen system is a premarket approved, or PMA, product that offers significant advantages over competitors' long bone stimulation systems, including ease of use, superior clinical efficacy and a broader label that is the only label for a long bone growth stimulator for certain fresh fractures. Our two PMA approved HA viscosupplementation therapies are: Supartz FX, a five injection therapy, which we market in the United States, and GelSyn-3, a three injection therapy, which we expect to launch in the United States in the second half of 2016. We also market Durolane, a single injection therapy, outside the United States and own certain related assets.
- *Surgical.* Our Surgical segment offers a broad portfolio of advanced bone graft substitutes in the United States that are designed to improve bone fusion rates following spinal fusion and other orthopedic surgeries. These products include our OsteoAMP allogeneic growth factor, a range of bioactive synthetics, a collagen ceramic matrix, a demineralized bone matrix, or DBM, and allograft comprising demineralized cancellous bone in different preparations. Our development pipeline includes additional bone graft substitutes.
- *BMP.* Our BMP segment is comprised of proprietary next-generation BMP. Our next-generation BMP product candidates are designed to offer at least equivalent efficacy at a lower dose administration and provide a better-controlled release to address the safety concerns associated with Infuse, the current market-leading bone graft.

We were founded in May 2012, when a group led by Essex Woodlands Health Ventures Inc. acquired a majority stake in the biologics business of Smith & Nephew plc, which included Exogen, exclusive U.S. distribution rights to Supartz and exclusive distribution rights to Durolane outside the United States. Our investors believed that as an independent organization, the biologics business would provide a platform from which to build a global leader in the rapidly evolving orthobiologics market. Since our founding, we have assembled an experienced senior executive team to execute this vision. This team has successfully accomplished the following:

- *Established our surgical business through the acquisition and integration of the OsteoAMP product line in 2014 and the BioStructures business in 2015.* Our OsteoAMP product is an allogeneic growth factor that through our proprietary processing retains higher levels of naturally occurring growth factors, leading to better bone remodeling than other allograft products on the market. Our line of products from the recent BioStructures acquisition includes SignaFuse and Interface, bioactive synthetic products in various preparations, as well as complementary DBM and allografts. We believe these acquisitions provide us with one of the broadest and most differentiated portfolios of advanced bone graft substitutes.
- *Accelerated the research and development of our next-generation BMP product candidates by obtaining an exclusive worldwide license to an intellectual property portfolio.* Since obtaining an exclusive, worldwide

license, subject to certain field of use and other restrictions, to certain parts of Pfizer's BMP portfolio in 2013, we have designed and developed a protein molecule and carrier technology in order to optimize BMP release and reduce excess bone formation. In studies involving more than 80 non-human primates, our next-generation BMP product candidates have demonstrated at least equivalent efficacy to Infuse, while requiring only one-tenth the dosage. We intend to pursue three different indications for our next-generation BMP which are transforaminal lumbar interbody fusion, or TLIF, posterior lumbar interbody fusion, or PLIF, and open tibia fractures. We plan to initiate a Phase 1 clinical trial within 18 months.

- *Enhanced our Active Healing Therapies business by securing distribution rights to commercialize a broader set of HA viscosupplementation therapies.* In February 2016, we acquired the exclusive U.S. distribution rights for GelSyn-3, a PMA three injection HA viscosupplementation therapy from Institut Biochimique SA, or IBSA. We expect to launch the product in the United States in the second half of 2016. In 2015, we began distribution of Supartz FX, which has an expanded label for repeat injection cycles, to broaden our offering of HA viscosupplementation therapies. In addition, we acquired certain assets outside the United States to Durolane, a single injection HA viscosupplementation therapy, to which we previously only had the exclusive distribution rights from Galderma S.A. and Q-Med AB. This acquisition allows us to expand to new geographic markets and increase our profitability for this product.

We currently market and sell our products in the United States and 29 other countries. As of December 31, 2015, our sales organization consisted of approximately 234 direct sales representatives and 135 independent distributors in the United States and approximately 70 direct sales representatives and ten independent distributors internationally. In the United States, our Active Healing Therapies sales organization markets our products to orthopedists, musculoskeletal and sports medicine physicians and podiatrists. Our Surgical sales organization is composed of a sales management team that markets our surgical products primarily to neurosurgeons and orthopedic spine surgeons. In international markets, we market and sell our Active Healing Therapies through direct sales representatives in twelve countries and through independent distributors in an additional 17 countries. We do not sell our products through or participate in physician-owned distributorships. We have grown our total net sales from \$232.4 million for the year ended December 31, 2013 to \$242.9 million for the year ended December 31, 2014 and to \$253.7 million for the year ended December 31, 2015, at a compound annual growth rate, or CAGR, of 4.5%. We have grown our Adjusted EBITDA from \$33.1 million for the year ended December 31, 2013 to \$42.9 million for the year ended December 31, 2014 and to \$53.5 million for the year ended December 31, 2015, at a CAGR of 27.0%. For a reconciliation of net loss to Adjusted EBITDA, see Note 3 to the information contained in "Prospectus summary—Summary historical and pro forma financial information."

Additionally, we support our orthobiologics through global surgeon education on topics like approved patient indications, contra-indications and overviews of the features and clinical benefits of our products. For example, we support local, regional and national educational courses to allow surgeons to learn and experience new orthobiologics.

Our competitive strengths

We believe we have the following competitive strengths:

- *Sufficient scale combined with an exclusive focus on orthobiologics.* We believe we are the only company exclusively focused on the orthobiologics market with annual net sales over \$100 million. We are focused on identifying unmet orthobiologic market needs, developing products that stimulate healing in the body and successfully commercializing these products. Our team has extensive experience working closely with regulatory agencies on achieving the appropriate path to market, designing clinical trials, gaining managed care or purchasing committee contracts, and effectively managing our direct or distributor sales

organizations. We believe we have sufficient scale and resources to be competitive and relevant in the marketplace, but are small enough to respond quickly to internal and external opportunities.

- *Leadership and strong competitive positions in Active Healing Therapies.* Our Active Healing Therapies segments generated all of their \$227.9 million in net sales in 2015 from PMA approved products. Our Exogen system is the market leader in the long bone stimulation market, which we believe is the result of its ease of use, its clinical advantages and its broader label which is the only label for a long bone growth stimulator that includes certain fresh fractures. We also have a strong position in the HA viscosupplementation market with Supartz FX and Durolane, and we expect to launch a three injection HA viscosupplementation therapy, GelSyn-3, in the United States in the second half of 2016. We believe our direct salesforce of approximately 234 representatives is among the largest sales forces in our industry.
- *Broad portfolio of advanced orthobiologics that address a variety of surgeon needs.* We offer a broad portfolio of advanced orthobiologics products that enables us to fulfill a greater portion of the orthobiologics needs of neurosurgeons and orthopedic spine surgeons than many of our competitors. Our product portfolio includes allogenic growth factors supported by clinical and preclinical data, superior handling bioactive synthetics, DBMs with superior handling properties and allografts in a variety of formats such as granules, putties, sponges and strips. We believe our current product portfolio, combined with our pipeline of next-generation products and additional indications, positions us to be a portfolio provider of surgical orthobiologic solutions.
- *Next-generation BMP product candidates in development.* Infuse revolutionized certain types of spinal fusion by enabling faster recovery time and improved bone healing, but safety concerns have limited its ability to be used across a broader range of procedures. Our team has designed and developed a new protein molecule and carrier technology for our next-generation BMP product candidates that enables more targeted, controlled release of BMP. In more than 80 non-human primate studies, our BMP product candidates have demonstrated at least equivalent efficacy to Infuse at one-tenth the dosage. As a result, we believe our next-generation BMP product candidates have the potential to address market opportunities more safely and effectively than Infuse. Additionally, we have significant opportunities in the near- and medium-term to demonstrate clinical data for our product candidates and advance them through clinical trials, including through our Phase 1 clinical trial that we expect to commence within 18 months.
- *Seasoned management focused on profitable growth.* Our senior leadership team has been involved in growing large businesses or business lines, major acquisitions and integrations, public company sale transactions, as well as the development, approval and launch of transformative medical devices and orthobiologics. We have completed five acquisitions, license and distribution agreements to establish our Surgical business, accelerate growth in our Active Healing Therapies business and invest in our pipeline. We have completed four of these transactions without external financing and through December 31, 2015 have invested approximately \$25.6 million into our next-generation BMP product candidates, since licensing the technology from Pfizer, while growing Adjusted EBITDA.

Our strategy

- *Grow our Surgical business by investing in our portfolio and expanding our distribution network.* Through the acquisition of BioStructures, we expanded our existing distribution network and broadened our product portfolio. We intend to sell both OsteoAMP and BioStructures products through this expanded distribution network of approximately 135 distributors. Additionally, we are continuing to invest in product development and clinical studies. Over the long term, we believe we can be a portfolio provider of orthobiologics to hospitals by offering bone graft substitutes backed by clinical and economic data.

- *Advance our next-generation BMP product candidates.* We are investing significant resources into our next-generation BMP product candidates. We intend to enter clinical trials for transforaminal lumbar interbody fusion, or TLIF, posterior lumbar interbody fusion, or PLIF, and open tibial fractures, which we believe represents an approximately \$240 million market for BMP-2 products in the United States, in the aggregate. We intend to enter a Phase 1 clinical trial within 18 months and expect to demonstrate advancement of our product candidates through a number of milestones over the next two years. Upon the first commercial sale of a product candidate, Pfizer will assign us certain intellectual property rights covered by our license agreement.
- *Grow our Active Healing Therapies business through new product introductions and selling strategies.* We intend to grow our HA viscosupplementation therapies business by commercializing GelSyn-3, a three injection therapy, to which we recently obtained the U.S. distribution rights from Institut Biochimique SA, IBSA. We believe this will enable us to contract with a broader set of payors as many payors provide reimbursement for three injection therapies, but not five injection therapies. In addition, we intend to continue to grow sales of our Exogen system by introducing new technology-based decision-making tools that assist physicians in deciding when to prescribe bone growth stimulators, as well as highlighting our Exogen system's ease of use, clinical advantages and its broader label which is the only label for a long bone growth stimulator that includes certain fresh fractures.
- *Selectively pursue business development opportunities.* We have completed five acquisitions, licensing and distribution agreements since our founding in 2012. We intend to continue to selectively pursue business development opportunities that add to our Surgical business as well as broaden our Active Healing Therapies business. We will continue to be disciplined when evaluating opportunities and look for products that have clinical differentiation and cost-effectiveness.
- *Focus on continued Adjusted EBITDA growth.* We have increased our Adjusted EBITDA, while making significant investments in our development pipeline. Additionally, we are focused on continuing to increase our Adjusted EBITDA over time by leveraging the investments we have made to date, as well as maintaining our cost focus.

Our products

We offer a broad portfolio of orthobiologic products to meet the needs of our orthopedist, musculoskeletal and sports medicine physician, podiatrist, neurosurgeon and orthopedic spine surgeon customers and their patients. Our current products are organized into two product categories: Active Healing Therapies, for both U.S. and International, and Surgical.

Active Healing Therapies

Our Active Healing Therapies business is comprised of two types of non-surgical products: a non-invasive bone stimulation device and HA viscosupplementation therapies. The HA viscosupplementation therapies that we distribute, own or will launch include Supartz FX, Durolane and GelSyn-3. Our Active Healing Therapies products are presented in the summary table below:

Product	Description	Regulatory pathway	Region where marketed	Year first introduced
Exogen	<ul style="list-style-type: none"> • Ultrasound bone healing system for fresh fractures and nonunion fractures 	<ul style="list-style-type: none"> • PMA • Health Canada • CE Mark 	<ul style="list-style-type: none"> • United States • Canada • Outside the United States 	<ul style="list-style-type: none"> • 1994 in the United States • 1999 in Canada • 1996 in Europe
Supartz FX	<ul style="list-style-type: none"> • Five injection HA viscosupplementation therapy for repeat injection cycles 	<ul style="list-style-type: none"> • PMA 	<ul style="list-style-type: none"> • United States 	<ul style="list-style-type: none"> • 2015 (Supartz FX) • 2001 (Supartz)
Durolane	<ul style="list-style-type: none"> • Single injection HA viscosupplementation therapy 	<ul style="list-style-type: none"> • Health Canada • CE Mark 	<ul style="list-style-type: none"> • Canada • Outside the United States 	<ul style="list-style-type: none"> • 2003 in Canada • 2001
GelSyn-3	<ul style="list-style-type: none"> • Three injection highly-purified HA viscosupplementation therapy 	<ul style="list-style-type: none"> • PMA 	<ul style="list-style-type: none"> • United States 	<ul style="list-style-type: none"> • Expected second half of 2016

Exogen

We offer our Exogen system for the non-invasive treatment of established nonunion fractures and fresh fractures. This therapy provides an effective, safe and cost-effective treatment alternative to surgical intervention for nonunions. Nonunions may occur when the fracture moves too much, has poor blood supply or succumbs to infection. Bone grafts typically provide no inherent stability to the fracture site. Our Exogen system is the only device on the market with PMA approval for the accelerated healing of fresh fractures of the tibia and radius. Bone stimulation devices promote bone healing in difficult to heal fractures or fusions by applying electrical or ultrasonic current to the fracture or fusion site. Electrical stimulation devices can be applied either non-invasively or invasively, while ultrasound bone stimulation devices are only applied non-invasively. Electrical bone growth stimulators utilize treatment coils situated around the fracture or fusion site powered by an external power supply.

Our Exogen system is approved for use by patients aged 18 years or older who are skeletally mature. Our Exogen system utilizes low-intensity pulsed ultrasound technology to stimulate the body's natural bone healing process. The ultrasound output intensity of the device is comparable to diagnostic ultrasound intensity levels used in obstetrical sonogram procedures for fetal monitoring and is typically only one to five percent of the output intensity of conventional therapeutic ultrasound devices used for physical therapy. The depth and breadth of our Exogen ultrasound signal enables it to treat superficial and deep indicated fractures. Exogen ultrasound is osteoinductive, which means it stimulates cells to differentiate into osteoblasts, or cells that make new bone. The growth of this new bone helps bridge the gap at the fracture site.

Patients use our Exogen system to administer treatment at home or at work, once daily, for 20 minutes, or as prescribed by their physician, for accelerating bone healing. The system consists of the portable device, a charger, a

gel bottle and strap. The device features a transducer at the end of a coiled cord, a color screen, a power button and a mini-USB charging port to allow for recharging the battery. The transducer sends specifically-programmed low-intensity pulsed ultrasound to the fracture site through the skin and soft tissue, with little or no sensation felt by the patient during the treatment. The gel lets the ultrasound signal reach the fracture site through the patient's skin. The strap is adjustable to fit most fracture locations and utilizes a port and cap that holds the transducer down on the treatment site.

Our Exogen system provides an easy to use interface. To begin treatment, a patient holds the device in hand or on a nearby flat surface and presses the button on the device. Following a beep and the appearance of the start-up screen and calendar showing the current month and treatment summary, a 20-minute countdown timer appears on the screen. The device begins the ultrasound treatment. When the countdown timer reaches zero, the device beeps and shows the treatment complete screen, followed by an additional beep at which time the device turns itself off. The device features a built-in treatment-tracking calendar that records completed and missed treatments and displays the patient's compliance rate to-date. These features, combined with the 20 minute cycle, make treatment compliance convenient for the patient and verifiable for the physician. The device stores and displays treatment history for a period of up to twelve months. Our Exogen system has demonstrated 91% treatment compliance in a clinical study. An additional support tool for the patient is Exogen Connects, a free smartphone app that provides daily automated treatment reminders and helpful healing information.

Clinical

Our Exogen system has demonstrated clinical effectiveness in multiple clinical trials and in case series. In a prospective, multicenter, randomized, double-blind, placebo-controlled trial, involving 67 tibial fresh fractures at 16 centers in the United States and Israel, fractures treated with our Exogen system experienced a statistically significant decrease in the time to overall clinical and radiographic healing. Patients treated with our Exogen system experienced healing in 96+-4.9 days, compared with 154+-13.7 days for patients in the control group with a P-Value of 0.001, representing a 38% increase in accelerated healing, a difference of more than eight weeks. In a separate prospective, multicenter, randomized, double-blind, placebo-controlled trial, involving 61 distal radial fresh fractures at 10 centers in the United States and Israel, fractures treated with our Exogen system experienced a statistically significant decrease in the time to fracture union. P-value is a conventional statistical method for measuring the statistical significance of clinical results. A p-value of less than 0.050 is generally considered to represent statistical significance, meaning that there is a less than five percent likelihood that the observed results occurred by chance. Patients treated with our Exogen system experienced healing in 61+-3 days, compared with 98+-5 days for patients in the control group ($p<0.0001$), representing a 39% increase in accelerated healing, a difference of more than five weeks. Patients in the treatment group also experienced a 53% mean increase in fracture alignment compared with the control group ($p<0.01$). In a study of challenging, established nonunions, 86% of cases using our Exogen system healed in an average treatment time of 22 weeks. On average, the postfracture period before the start of ultrasound treatment was 61 weeks.

Our Exogen system has been shown to provide significant cost savings over surgery. A published cost effectiveness study analyzed the total costs of treating a pool of 1,000 patients with tibial shaft fractures from initial trauma to union. Cost assumptions included the costs of surgery and recovery, outpatient, workers' compensation, emergency room and disability costs. The study compared the costs of standard conservative treatment and use of our Exogen system to promote early fracture healing to standard conservative treatment or operative treatment with no use of our Exogen system. The use of our Exogen system resulted in a cost savings of over \$15,000 per case, or 40%, due to dramatically lowering the need for secondary procedures and workers' compensation costs. The conclusion of the analysis was that reduced healing time attributable to the use of our Exogen system could yield substantial costs savings for third-party payors, employers and government agencies. Our Exogen system is effective across a wide range of patients and is the less costly bone

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stimulation device for conservative treatment of nonunions compared to our competitor's devices due to its greater probability of treatment success. According to a study by the National Institute for Health and Care Excellence in the United Kingdom, treating nonunion fractures using Exogen demonstrated high rates of fracture healing with an estimated saving of over £1,164 per patient compared to current treatment. Surgical treatment options of nonunions include the use of bone grafts, internal fixation, painful external fixation, or a combination of these options. In most cases, multiple surgeries are required to fully heal a nonunion, which increase the burden to the patient and the healthcare system.

Although we have not conducted direct comparative studies against other bone stimulation device, based on available published data regarding other bone stimulation devices, our Exogen system produces greater rates of bone union and accelerates fresh fractures by 38% in shorter daily treatment periods.

Comparison of U.S. long bone stimulation devices

Product Manufacturer	Daily treatment times	Technology	Indications	PMA heal rates	
				Fresh fractures*	Nonunions
Exogen <i>Bioventus</i>	20 minutes	Low-intensity pulsed ultrasound	Fresh fractures and nonunions	38% acceleration	86%
EBI Bone Healing System <i>Zimmer Biomet Holdings, Inc.</i>	10 hours	Pulsed electromagnetic field	Nonunions	Not approved	63.5%
OsteoGen <i>Zimmer Biomet Holdings, Inc.</i>	24 hours	Direct electrical current (implanted)	Nonunions	Not approved	38.8–66.7%
Physio-Stim <i>Orthofix International B.V.</i>	3 hours	Pulsed electromagnetic field	Nonunions	Not approved	35.7–80.0%
DonJoy OL1000 <i>dj Orthopedics LLC</i>	30 minutes	Combined magnetic field	Nonunions	Not approved	80%
Orthopak 2 Bone Growth Stimulator <i>Zimmer Biomet Holdings, Inc.</i>	24 hours	Capacitive coupling	Nonunions	Not approved	72.5%

* Heal rates for fresh fracture as compared to placebo.

HA viscosupplementation offerings

GelSyn-3

GelSyn-3 is a highly purified three injection HA therapy that is FDA premarket approved and indicated for the treatment of pain due to knee osteoarthritis in patients who have failed to respond adequately to conservative non-pharmacologic therapy and simple analgesics. The solution treats knee osteoarthritis by providing temporary replacement for the diseased synovial fluid and restoring lubricity of bearing joint surfaces. Physicians administer GelSyn-3 to the affected knee joint once a week for three consecutive weeks. GelSyn-3 is derived from biofermentation through a highly purified process, which does not involve the use of animal products, thereby reducing the potential risk of an immune response following injection. This process ensures a

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final low-to-mid molecular weight HA product that consists of non-chemically modified long unbranched chains of natural hyaluronan. We obtained the U.S. distribution rights to GelSyn-3 from IBSA in February 2016 and expect to launch the product in the United States in the second half of 2016.

Clinical

The safety and efficacy of GelSyn-3 was assessed in a prospective, multicenter, randomized, controlled, doubleblind, non-inferiority pivotal study that enrolled 381 adult patients with knee osteoarthritis at 23 centers in Europe between November 2007 and July 2009. Patients were randomized to receive 2 mL intra-articular injections of GelSyn-3 (also known as Synovial outside the United States) or Synvisc, which is manufactured by Sanofi S.A., once a week for three consecutive weeks, with follow-up visits scheduled for weeks four, twelve and 26. The primary efficacy variable for the study was the Western Ontario McMaster Universities Index, or WOMAC Index, pain subscore at week 26, which was required to meet a delta of 8 mm protocol defined non-inferiority margin from baseline on the 100-mm visual analogue scale format. The WOMAC Index is a standardized and validated methodology consisting of 24 questions to assess pain, stiffness and physical function in patients with knee osteoarthritis. The WOMAC Index is routinely used as a primary endpoint in clinical trials studying the effect of drugs and devices on knee osteoarthritis. Higher scores on the WOMAC Index indicate worse pain, stiffness and functional limitations. A WOMAC Index improvement of 10–20 mm represents the minimum clinically important improvement. Safety variables included adverse events, pain and local tolerability at the injection site and global tolerability as assessed by both patient and investigator.

A total of 380 patients, the intent-to-treat, or ITT, patient population, received at least one intra-articular injection of either GelSyn-3 or Synvisc. At 26 weeks, the 100 mm WOMAC Index pain subscore for ITT patients was 32.9+1.6 for the GelSyn-3 treatment group, compared to 32.2+1.7 for the Synvisc treatment group, corresponding to a between-group mean difference in change from baseline at 26 weeks of 0.7+1.7. The WOMAC Index pain subscore results met the prespecified criteria for non-inferiority. The safety data generated in the study demonstrated that GelSyn-3 injections were well-tolerated and patient/investigator scoring for global tolerability indicated widespread procedural acceptability. There was no statistically significant intergroup difference in the overall incidence of adverse events or in severe, serious or suspected treatment-related adverse events.

Supartz FX

Supartz FX, which we market in the United States, is a sterile and viscoelastic injectable solution that is PMA approved for the treatment of pain in patients with knee osteoarthritis who failed to adequately respond to conservative nonpharmacological therapy and simple analgesics. The solution treats knee osteoarthritis by providing temporary replacement for the diseased synovial fluid and restoring the lubricity of the bearing joint surfaces. Supartz FX may also delay the need for total knee replacement. Unlike oral analgesics or non-steroidal anti-inflammatory drugs, which affect all parts of the body, Supartz FX specifically targets knee osteoarthritis. The product is made from HA extracted from certified and veterinary inspected chicken combs.

Physicians administer Supartz FX solution to affected joints typically once a week in a flexible dosage based on the medical condition of the patient and response to treatment. A local anesthetic is applied to the knee and synovial fluid in the knee joint is removed using a syringe through a process called arthrocentesis. Supartz FX is then injected into the knee space.

The treatment is approved for five weekly injections, which has been shown in a clinical study to relieve pain for up to six months. Some patients may experience benefit with three injections given at weekly intervals. This has been noted in a study in which patients treated with three injections were followed for 90 days. Most patients experience little or no discomfort during the injection. To date, over 300 million injections of the Supartz HA formulation have been safely administered globally.

Clinical

Supartz FX has demonstrated clinical effectiveness in multiple clinical trials to relieve pain, improve mobility and improve patient quality of life. Supartz FX can allow patients to delay costly knee replacement surgery, while controlling pain, potentially allowing patients to maintain active lifestyles. In addition, although we have not conducted direct comparative studies against other non-surgical treatment options, based on available published clinical data, treatment with HA viscosupplementation therapies such as Supartz FX have had the greatest effect size for both pain reduction and function and improvement of the knee.

In clinical studies, adverse events were no more common following treatment with Supartz FX than comparable treatment with saline placebo. In a double blind, randomized, multicenter, parallel group study of the effectiveness and tolerance of intra-articular HA viscosupplementation therapies in knee osteoarthritis, Supartz FX reduced knee pain in patients by 50% from the baseline. Of 240 patients randomized for inclusion in the study, 223 patients were evaluable for the modified intention to treat analysis and the statistically significant difference from the control was apparent after the series of injections was complete. Intra-articular HA viscosupplementation therapies were significantly more effective than saline in mild to moderate knee osteoarthritis for the 13 week post injection period of the study.

In a separate retrospective analysis of 30,978 patients undergoing total knee replacement, the median time-to- total knee replacement surgery was 326 days for 22,555 patients that did not undergo HA injections and 908 days for the cohort of 8,423 patients that underwent HA viscosupplementation therapies. Time-to-total knee replacement was defined as the total days from the date of diagnosis of knee osteoarthritis on the patient's first visit to an orthopedic surgeon to the date of total knee replacement surgery. Those receiving HA viscosupplementation therapies had a median 1.6 years longer time-to-total knee replacement versus those who did not receive HA viscosupplementation therapies, thereby demonstrating positive clinical and economic implications.

Comparison of U.S.-approved multi-injection HA viscosupplementation therapies

Product <i>Manufacturer or distributor</i>	Source and process	Active ingredient / treatment dosage	Number of injections per course
GelSyn-3 <i>Bioventus</i>	Fermented, bacterial derived HA	0.8% sodium hyaluronate (17mg)	Three
Supartz FX <i>Bioventus</i>	Naturally derived, purified HA	1.0% sodium hyaluronate (75mg/ 125mg)	Five
Hyalgan <i>Interpace BioPharma LLC</i>	Naturally derived, purified HA	1.0% sodium hyaluronate (60mg/ 100mg)	Three to Five
Synvisc <i>Sanofi S.A.</i>	Hylan polymers, purified HA	Hylan G-F 20 (48mg)	Three
Orthovisc <i>DePuy Orthopaedics, Inc (Johnson & Johnson)</i>	Naturally derived, purified HA	1.0% sodium hyaluronate (90mg/ 120mg)	Three to Four
Euflexxa <i>Ferring Pharmaceuticals Inc.</i>	Fermented, bacterial derived HA	1.0% sodium hyaluronate (60mg)	Three

Durolane

Durolane, which we market outside the United States and own certain related assets, is a transparent gel which contains high levels of HA injected directly into joints affected by osteoarthritis to relieve pain, restores lubrication and cushioning which improves joint function and restores quality of life, and helps to potentially avoid or delay hip or knee replacement surgery. Durolane is the only one-time injectable solution indicated for treatment of osteoarthritis in both the knee and hip, as well as for treatment of other orthopedic joints. We believe that Durolane's injection schedule results in economic advantages and greater patient convenience and compliance compared to other HA viscosupplementation therapies, which require weekly injections over a period of three to five weeks. Durolane is highly purified and based upon a natural, safe and proven, and patented non animal stabilized hyaluronic acid which ensures a reduced risk of impurities and expands use to patients who are allergic to animal derived solutions. Durolane also contains high levels of concentrated HA that extends the half-life of Durolane considerably, whereas the HA in certain other HA viscosupplementation therapies disappears within a few days after the injection.

Clinical

In a study of 103 patients who received Durolane single injection therapy, the solution demonstrated statistically significant ($p < 0.001$) reductions in pain at three months as compared to the baseline. Furthermore, 80% of these patients reported positive satisfaction with the treatment with minimal adverse events that did not require more than mild analgesics.

A 26-week randomized, double-blind, multicenter study of a single intra-articular knee injection compared the efficacy of Durolane with saline (placebo) in patients with knee osteoarthritis. A total of 346 patients were treated and a favorable reduction in pain with Durolane was observed that generally began by week two and persisted throughout the 26-week protocol. While similar results were observed in the saline group, in the group of patients with localized knee osteoarthritis, there was a significantly greater response rate following treatment with Durolane, starting at six weeks, as compared to patients in the saline group.

In a separate prospective, multi-center, randomized, active-controlled, double-blind, non-inferiority clinical trial with 442 enrolled patients, it was demonstrated that single injection Durolane was well tolerated and non-inferior to the corticosteroid methylprednisolone acetate, or MPA, at twelve weeks. MPA is used to treat pain and swelling that occurs with osteoarthritis and other joint disorders. The effect size for pain, physical function and stiffness scores favored Durolane over MPA from twelve to 26 weeks. The benefit of Durolane was maintained to 26 weeks while that of MPA declined. An injection of Durolane at 26 weeks conferred long-term improvements without increased sensitivity or risk of complications. One subset of 28 patients received an injection of Durolane at the beginning of the study, but chose not to receive a second injection at 26 weeks. Continuing improvement from baseline was observed among these patients, reflecting the fact that they did not feel the need for a second injection.

In a prospective, open-label, three-month pilot study of a single intra-articular injection of Durolane in 31 patients, the response rate in treating osteoarthritis of the hip was 50% at two weeks and 54% at three months. In the extension population of patients returning for re-assessment six to eleven months post-treatment, response rates were 69% and 44% at month three and the extension visit, respectively. The proportion of patients rating their status as good or very good increased from 0% at baseline to 46% at three months.

Comparison of major single injection HA viscosupplementation therapies

Product Manufacturer or distributor	Indication	Source and process	Active ingredient / treatment dosage	Duration
Durolane <i>Bioventus</i>	Osteoarthritis of the knee, hip, ankle and toes	Non-animal, bacteria fermentation sourced, stabilized HA	NASHA / (60 mg)	Six months
Synvisc-One <i>Sanofi S.A.</i>	Osteoarthritis of the knee	Animal sourced Hylan A and Hylan B polymers	Hylan G-F 20 / (48 mg)	Six months
Monovisc <i>DePuy Orthopaedics, Inc. (Johnson & Johnson)</i>	Osteoarthritis of the knee	Non-animal cross-linked sourced HA	2.2% sodium hyaluronate / (88mg)	Six months
Gel-One <i>Zimmer Biomet Holdings, Inc.</i>	Knee Osteoarthritis	Animal sourced HA	1.0% sodium hyaluronate / (30mg)	Three months

Surgical

Our Surgical business offers a broad portfolio of advanced bone graft substitutes designed to improve bone fusion rates following spinal and other orthopedic surgeries, including trauma and reconstructive foot and ankle procedures. These products include allogeneic growth factors (OsteoAMP), a range of bioactive synthetics (Signafuse and Interface), a collagen ceramic matrix (Signafuse), a biphasic calcium phosphate synthetic (OsteoPlus), a demineralized bone matrix (Exponent) and allograft demineralized cancellous bone in different preparations (PureBone).

OsteoAMP

OsteoAMP is an allogeneic bone graft designed to provide substantially higher levels of BMP-2 than other human tissue derived bone graft substitutes on the market and with fewer complications than Infuse. We process OsteoAMP utilizing a novel tissue processing technique in which allograft and its native bone marrow are processed to preserve naturally occurring growth factors that are beneficial to bone growth and remodeling. These important growth factors include: BMP-2; BMP-7; transforming growth factor beta 1, or TGF- β 1; acidic fibroblast growth factor, or aFGF; vascular endothelial growth factor, or VEGF; and angiopoietin 1, or ANG1. OsteoAMP is processed so that bone marrow cells containing these growth factors are naturally bound to the cadaver bone in order to make them bioavailable. Surgical preparation of OsteoAMP is similar to other bone graft substitutes in that it is often reconstituted with blood or bone marrow aspirate. OsteoAMP is offered in compressible sponge, putty and granule preparations to meet the varying needs and preferences of our surgeon customers.

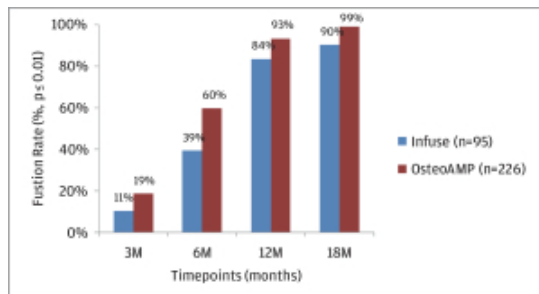
Clinical

OsteoAMP demonstrated higher fusion rates in lumbar fusion procedures, fewer adverse events and proved more cost effective as compared to Infuse in a radiographic and economic analysis. In a study comparing 321 patients with Infuse, a dual-arm radiographic analysis was conducted at three clinical sites to evaluate the fusion success rate of OsteoAMP and Infuse in lumbar spine procedures that underwent a TLIF or lateral lumbar interbody fusion intervention. An independent radiologist was blinded to the intervention, product and surgeon information. Patients underwent X-ray and/or computed tomography at standard postoperative follow-up

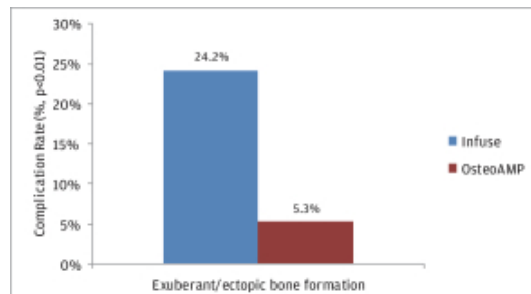
intervals of approximately one, three, six, twelve and 18 months. OsteoAMP produced higher rates of fusion at all time points compared to Infuse ($p \leq 0.01$). Total time for fusion for OsteoAMP was approximately 38% shorter than that of Infuse (207.9 and 333.9 days, respectively). Radiologic evidence of ectopic bone formation in soft tissues was found in 24.2% of the Infuse cases compared to 5.3% in patients receiving OsteoAMP ($p < 0.01$). The study also analyzed orthobiologic surgical supply costs to ascertain cost differences between OsteoAMP and Infuse. The OsteoAMP arm was 80.5% less expensive per patient and 73.7% less expensive per level than the Infuse arm.

The chart below on the left shows the fusion success rate of Infuse compared to OsteoAMP at various timepoints, while the chart below on the right shows the complication rates of Infuse compared to OsteoAMP as it relates to ectopic bone formation:

Fusion success rate at points in time



Complication rates



We are sponsoring a prospective, nonrandomized, noncontrolled, multicenter study of OsteoAMP in instrumented PLIF, that will enroll approximately 120 patients at up to ten centers in the United States. The objective of this clinical study is to evaluate the long-term efficacy of OsteoAMP in patients undergoing an instrumented PLIF procedure of one or two adjacent motion segments between L1 to S1 in patients suffering from lower back and leg pain. The study will evaluate OsteoAMP in spinal fusion procedures based on fusion results, adverse event rates, and pain and health scores. Enrollment in this study has begun and we expect to complete a 24 month follow-up of all patients in 2019.

Bioactive synthetics

Our bioactive synthetics products offer a broad portfolio of bone graft substitutes designed to improve bone fusion rates with bioactive and resorbable composites which enhance the body's bone tissue production to regenerate diseased and missing tissue. When implanted in living tissue, the materials undergo a time-dependent surface modification that results in the formation of a calcium phosphate layer equivalent to bone material to provide an osteoconductive scaffold for the generation of new osseous, or bone, tissue. New bone infiltrates around the composites to allow repair of the defect to be absorbed.

Our bioactive synthetics leverage the science of bioactive glasses, or bioglass, discovered in 1969 which for the first time provided an alternative to inert implant materials to form rapid and stable bonds with host tissues to stimulate osteogenesis with little resistance or rejection in the human body. Many advances have since been made in understanding the mechanisms of bonding to both bone and soft connective tissues. The clinical success of bioinert, bioactive and resorbable implants has been a vital response to the medical needs of the rapidly aging population. The limited mechanical strength of bioglass has resulted in combinations of bioglass with metals or polymers to optimize its characteristics to elicit specific interactions to direct cell proliferation, differentiation and matrix production.

Most recently, since it has been discovered that bioglass behaves like a growth factor to stimulate bone growth, focus has turned to bioglass' ability to repair the patient's own bone in a process known as osteostimulation. The bioactive substrates released from bioglass positively affect osteoblasts and stimulate more bone tissue development earlier than other synthetic biomaterials. Numerous clinical studies have demonstrated the stimulation of osteogenic cells by inorganic bioglass to promote bone cell growth. In a retrospective, 88-patient comparative study, bioglass was shown to be as effective as iliac crest grafts, the preferred material for spinal fusion, in achieving fusion in patients with adolescent idiopathic scoliosis.

Signafuse Bioactive Bone Graft Putty

Signafuse is an FDA cleared bioactive synthetic bone graft substitute comprised of a mixture of calcium phosphate granules and bioglass granules suspended in a resorbable polymer carrier that facilitates handling and delivery of the granule components to fill spaces of missing bone. The product is indicated as a bone void filler for standalone use in posterolateral spine fusion procedures without the aid of autologous extenders or enhancers to meet the needs of the surgeon and effectively facilitate structural fusion of the spine. The ratio of certain components in Signafuse's composition is similar to ratios found to promote attachment and bone formation to produce a stable scaffold that allows sustained bioactivity and osteoconductivity during the healing process. The patented bioactive component is designed for a faster rate of bone fill than bioglass particles with a broader size range. In vitro studies have demonstrated the product's effective phosphate layer formation on the surface of the implant as early as seven days after application.

Signafuse is preloaded in a syringe applicator and can be combined with autologous bone while maintaining graft integrity. The putty is moldable, which offers superior handling characteristics.

Interface Bioactive Bone Graft

Interface is an FDA cleared bioactive synthetic bone graft in the form of irregular granules of bioglass to repair bone defects. The product is indicated for bony voids or gaps that are not intrinsic to the stability of bone structures created from traumatic injury to the bone. The product is a bone void filler that resorbs and is replaced with bone during the body's natural healing process. When implanted in living tissue, the material undergoes a time dependent surface modification resulting in the formation of a calcium phosphate layer, providing an osteoconductive scaffold for the generation of new bone tissue equivalent in composition and structure to the hydroxyapatite found in bone material.

Interface is supplied as irregular synthetic bioglass granules sized from 200–420 microns designed for enhanced performance benefits and faster bone fill compared to glass particles with a broader size distribution. The device is supplied in a single-use vial.

Product	Indications	Regulatory pathway / year cleared
Signafuse Bioactive Bone Graft Putty	<ul style="list-style-type: none">• Standalone posterolateral spine, extremities and pelvis, as well as a bone graft extender in the posterolateral spine	<ul style="list-style-type: none">• 510(k) / 2014
Interface Bioactive Bone Graft	<ul style="list-style-type: none">• Posterolateral spine when mixed with autograft, extremities and pelvis	<ul style="list-style-type: none">• 510(k) / 2011 (posterolateral spine)• 510(k) / 2010 (extremities and pelvis)

Signafuse Mineralized Collagen Matrix

Signafuse is an FDA cleared next-generation mineralized two-phase calcium phosphate bone void filler comprised of a collagen scaffold designed for optimized intra-operative handling and biologic responsiveness at the defect site. The product comprises a clinically proven mineral component suspended within a woven network of collagen fibers. The 90% porous matrix provides an interconnected structure optimized for the delivery of autogenic bone marrow aspirate and subsequent population of biologic factors essential to the healing process.

Signafuse's unique composition and structural properties deliver a bone graft that is tailored to support bone bonding and sustained remodeling as the healing process occurs. The product provides superior handling characteristics in both strip and putty forms and is designed to be hydrated with bone marrow aspirate prior to implantation.

Product	Indications	Regulatory pathway / year cleared
Signafuse Mineralized Collagen	• Extremities and pelvis	• 510(k) / 2015

Other products

We also distribute other products, such as OsteoPlus Synthetic Bone Graft Composite, Exponent Demineralized Bone Matrix and PureBone Demineralized Tissue. OsteoPlus Synthetic Bone Graft Composite is a biphasic calcium phosphate synthetic bone graft substitute that mimics the structure of natural cancellous and cortical bone for providing an osteoconductive scaffold with well-defined interconnected porosity for use in spine, extremities and pelvis procedures. Exponent Demineralized Bone Matrix is derived from human allograft bone tissue and is combined with a migration-resistant resorbable carrier and formulated into a putty for providing an osteoconductive scaffold in posterolateral spine procedures. PureBone Demineralized Tissue is derived from trabecular bone with compressible, elastic and sponge-like attributes and is offered in filler, block and strip options to provide an osteoconductive scaffold. We also sell a premium bone marrow aspiration system designed to increase concentrations of stem cells and progenitor cells in marrow aspiration compared to traditional needles.

Development pipeline

Next-generation BMP product candidates in development

We licensed certain next-generation BMP assets from Pfizer in 2013 because we believed there was significant market opportunity for BMP that could be realized. Our development team includes Dr. John Wozney, the scientist who first enabled the cloning of BMP, and Dr. Howard Seeherman, a distinguished BMP scientist, who together, led the development of Infuse. Our team has focused on the development of novel, highly potent BMP proteins and a carefully designed composite matrix carrier with the objective of promoting robust rapid bone formation in the absence of the challenges associated with Infuse.

To date, we have evaluated our BMP product candidates in a number of non-clinical surgical models in multiple species, including non-human primates. In these studies, we found that our BMP product candidates resulted in fusion when used for fibular segmental defect repair, posterolateral spine fusion and interbody spine fusion at a concentration of one-tenth or less of that used with Infuse. As part of the pre-clinical testing to develop our carriers, more than 80 non-human primates were exposed to our BMP protein in trauma and spine implantations. Results in this model, which we believe are highly predictive of clinical performance, demonstrated the localized potency of our BMP protein in promoting rapid, robust bone formation at a significantly lower dose than Infuse. Further confirmatory work in this model is planned for 2016, which we expect will include at least 24 additional non-human primates.

Our newly developed composite matrix carrier is designed to enable targeted delivery through the use of fenestrations to provide fluid drainage and tissue ingrowth and a biomimetic, highly porous scaffold intended to facilitate tissue ingrowth. The granule surface is engineered to enhance binding with the protein. We developed our carrier technology to circumvent the key carrier challenges faced by other BMP products, including excessive swelling caused by product overdosing in cervical fusion, subsidence, heterotopic bone formation and painful cysts. As a result, we believe our next-generation BMP product candidates have the potential to address a large number of market opportunities more safely and at least as effectively as Infuse.

Initial clinical testing of one of our product candidates will be conducted in a Phase 1/2, adaptive trial of subjects with symptomatic lumbar or lumbosacral degenerative spinal disorder requiring PLIF, a condition for which clinical efficacy of Infuse has previously been established. Trials of single or multi-level primary instrumented PLIF with Infuse have consistently demonstrated radiographic and clinical outcomes at least comparable to that of autograft bone graft, the ideal for spinal fusion procedures. However, the relatively high dose of Infuse generally required to achieve these results has limited the widespread adoption and product commercialization in this indication, largely due to concerns about systemic safety. As a first-in-human trial, our study will be designed conservatively, with an initial lead-in phase in which a limited number of subjects will be enrolled and treated with one or more doses of one of our next-generation BMP product candidates.

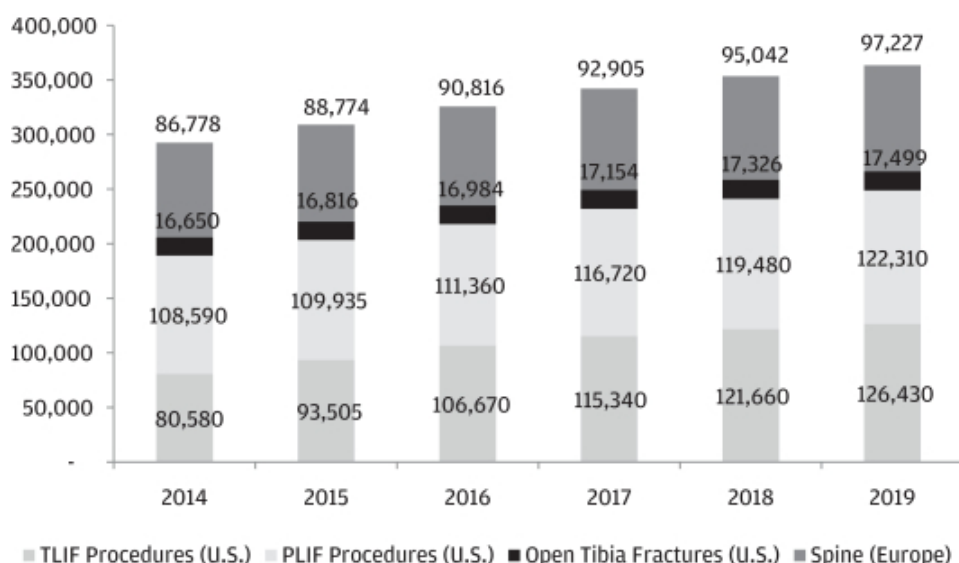
We expect to commence a Phase 1 clinical trial within 18 months. If we are able to recruit the necessary number of patients for our Phase 1/2 PLIF clinical trial and perform the planned CT within six months of surgery, we should expect a preliminary read out of the performance of our product in 2019 through the assessment of the Data Safety Monitoring Board. We believe Phase 2 confirmatory data could follow within twelve months of the availability of data for the Phase 1/2 PLIF clinical trial.

After any necessary dose adjustments, the trial will then expand to a larger number of subjects, with the intention of identifying an optimal dose for further study in a definitive, Phase 3 efficacy trial in the same indication. Further to a similar lead-in phase designed to confirm dosing, we plan to pursue pivotal trials for efficacy confirmation in TLIF and open tibial fractures.

We estimate the addressable market opportunity for our next-generation BMP product candidates is approximately \$1.2 billion, which consists of approximately 300,000 procedures annually for PLIF, TLIF and open tibia fractures in the United States and spine procedures in Europe. This market is projected to grow to \$1.4 billion by 2019 and the number of procedures is expected to rise to 360,000 representing CAGRs of 3.5% and 4.0%, respectively.

The following chart shows the forecasted total addressable procedures by end market for 2014 to 2019:

Forecasted total addressable procedures by end market



Research and clinical operations

We are committed to ongoing R&D in both our Surgical and Active Healing Therapies business. As of December 31, 2015, our R&D and clinical operations staff included approximately 30 engineers, scientists and project managers. Our R&D expenses, including spending on our clinical evidence development efforts, totaled \$9.5 million and \$14.7 million for the years ended December 31, 2014 and 2015, respectively. Within our Active Healing Therapies business, our current R&D efforts are focused primarily on improving design for ease of use and compliance. Within our Surgical business, our efforts are primarily focused on clinical and preclinical trials for our BMP product candidates, additional clinical and preclinical studies to support our currently marketed portfolio of bone graft substitutes, and development of new formulations of bone graft substitutes.

Competition

The medical technology industry is highly competitive, subject to change and significantly affected by activities of industry participants. Our Exogen system competes with products marked by Orthofix International N.V., Zimmer Biomet Holdings, Inc. and DJO Global Inc. The multi-injection HA viscosupplementation therapies that we own or distribute compete against Ferring Pharmaceutical Inc.'s Euflexxa, Interpace BioPharma LLC's Hyalgan, DePuy Orthopaedics, Inc. (Johnson & Johnson)'s Orthovisc and Sanofi S.A.'s Synvisc. These products have faced significant competition from single injection therapies, such as Sanofi S.A.'s Synvisc-One, Zimmer Biomet Holdings, Inc.'s Gel-One and DePuy Orthopaedics, Inc. (Johnson & Johnson)'s Monovisc. See "Risk factors—Risks related to our business—Our commercial success depends on our ability to differentiate the HA viscosupplementation therapies that we own or distribute from alternative therapies for the treatment of osteoarthritis." Our Surgical business competes with products from Medtronic, DePuy Orthopaedics, Inc. (Johnson & Johnson), Stryker Corporation, NuVasive, Inc., SeaSpine, Inc., Alphatec Holdings Inc., Orthofix International N.V., Zimmer Biomet Holdings, Inc., LDR Holding Corporation and K2M, Inc. At any time, these or other market participants may develop alternative treatments, products or procedures that compete directly or indirectly with our products. They may also develop and patent processes or products earlier than we can or obtain regulatory clearance or approvals for competing products more rapidly than we can.

See “Risk factors—Risks related to our business—We compete and may compete in the future against other companies, some of which have longer operating histories, more established products or greater resources than we do, which may prevent us from achieving increased market penetration or improved operating results.”

Intellectual property

We strive to protect and enhance the proprietary technologies, inventions and improvements that we believe are important to our business, including seeking, maintaining and defending patent rights, whether developed internally or licensed from third parties. Our policy is to seek to protect our proprietary position by, among other methods, pursuing and obtaining patent protection in the United States and in jurisdictions outside of the United States related to our proprietary technology, inventions and improvements that are important to the development and implementation of our business. We also rely on trademarks, trade secrets and careful monitoring of and contractual obligations with respect to our proprietary information to protect aspects of our business that are not amenable to, or that we do not consider appropriate for, patent protection.

Our success will depend on our ability to obtain and maintain patent and other proprietary protection for commercially important technology, inventions and know-how related to our business, defend and enforce our patents, maintain our licenses to use intellectual property owned by third parties and operate without infringing the valid and enforceable patents and other proprietary rights of third parties. For important factors related to our proprietary technology, inventions and improvements, please see the section entitled “Risk factors—Risks related to intellectual property.”

Patents

We own numerous patents and/or patent applications which relate to our products, including, but not limited to OsteoAMP, our Exogen system and our next-generation BMP product candidates. Corresponding patents and patent applications which relate to our products have also been granted or are otherwise pending in Europe, Asia, Canada, Mexico and Australia. As of December 31, 2015, we owned approximately 24 issued U.S. patents and had applications pending for approximately 6 U.S. patents, and we owned approximately 40 issued foreign patents and had applications pending for approximately 7 foreign patents.

Trademarks

We own registered trademarks for Bioventus, Exogen, Exponent, OsteoAMP, OsteoPlus, PureBone and Signafuse in the United States. We own registered trademarks for certain of our products, such as Durolane, outside the United States. We also have several pending U.S. and foreign trademark applications, including for Exogen, OsteoAMP and Durolane.

Trade secrets

We may rely, in some circumstances, on trade secret law to protect some of our technology. Trade secrets, however, can be difficult to protect.

We seek to protect our proprietary technology and manufacturing process, in part, by confidentiality and invention assignment agreements with employees, under which they are bound to assign to us inventions that are made during the term of their employment and relate to our business, unless otherwise excepted. These agreements further prohibit our employees from using, disclosing, or bringing onto the premises any proprietary information belonging to a third-party. In addition, our consultants, scientific advisors and contractors are required to sign agreements under which they must assign to us any inventions that relate to our business. These agreements also

prohibit these third-parties from incorporating into any inventions the proprietary rights of third-parties without informing us. It is our policy to require all employees to document potential inventions and other intellectual property in laboratory notebooks and to disclose inventions to patent counsel.

We also seek to preserve the integrity and confidentiality of our data and trade secrets by taking commercially reasonable efforts to maintain the physical security of our premises and physical and electronic security of our information technology systems.

While we have confidence in these individuals, organizations and systems, agreements or security measures may be breached (or not obtained in the first place) and we may not have adequate remedies for any breach. In addition, our trade secrets may otherwise become known or be independently discovered by competitors. To the extent that our consultants, contractors or collaborators use intellectual property owned by others in their work for us, disputes may arise as to the rights in related or resulting know-how and inventions.

License agreement with Pfizer

In June 2013, we entered into an agreement with Pfizer for an exclusive, worldwide license to certain parts of Pfizer's BMP portfolio, subject to certain field of use and other restrictions. The portfolio includes rights to develop, commercialize, make, use and sell products containing next-generation BMP and products containing BMP-2, in each case, for the prevention, treatment, or amelioration of disease in humans and animals. Under the license agreement, we also acquired an option to acquire an exclusive license for BMP-12 products. Pursuant to the license agreement, Pfizer transferred to us certain existing development work for their BMP assets and agreed to undertake certain early-development activities relating to the next-generation BMP product candidates. Pfizer also manufactures BMP-2 and has agreed to supply it to us pursuant to a separate supply agreement effective June 2013.

During the term of the license agreement, we are obligated to use commercially reasonable efforts to develop and commercialize (i) products containing next-generation BMP and (ii) products containing BMP-2. Upon the first commercial sale of a product containing next-generation BMP, Pfizer will assign to us certain IP rights relating to next-generation BMP, though we will continue to license certain material background IP from Pfizer under the agreement.

In connection with this agreement, we paid Pfizer a one-time, non-creditable, non-refundable license fee. We also agreed to pay Pfizer royalties of a mid-single digit percentage of net sales for BMP-2 and BMP-12 and a low-double digit percentage of net sales for next-generation BMP, subject to specified adjustments. Additionally, we are required to pay Pfizer certain milestone payments with respect to the licensed products upon achievement of certain development and commercialization milestones.

The term of the agreement will expire on a country-by-country and product-by-product basis upon the later of (i) the last to expire patent claim covering such product in such country, and (ii) ten years after the first commercial sale of such product in such country. Either party can terminate the agreement upon material breach or in case of bankruptcy of the other party. We can terminate the agreement for any reason (i) with respect to the next-generation BMP product candidates at any time after approximately July 2018, (ii) with respect to BMP-2 at any time after approximately July 2016, and (iii) with respect to BMP-12, if the option is exercised, any time after the three year anniversary of the date we exercise such option, in each case, subject to certain notice obligations.

Exclusive distribution agreement for Supartz FX

In May 2012, we entered into an agreement with Seikagaku Corporation, or SKK, whereby we obtained exclusive promotion and distribution rights, with the right to engage sub-distributors, for Supartz FX in the United States.

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Under the agreement, SKK supplies to us Supartz FX on a purchase order basis, based on the amounts of Supartz FX we require as set forth in rolling forecasts, and in exchange we pay to SKK a percentage of the average selling price per unit of Supartz FX, subject to certain adjustments. We are subject to certain annual minimum purchase requirements based on a percentage of our Supartz FX annual forecast, and are obligated to commercialize Supartz FX in the United States. Additionally, during the term of the agreement, SKK may not commercialize certain competing products in the United States.

The term of the SKK agreement continues in effect for five years until May 2017. We have the right to renew the agreement for an additional two year term by providing notice of such intent to renew to SKK at least 180 days in advance of the expiration of the initial term, provided that we make a payment to SKK to renew the agreement. If we fail to order a minimum quantity of Supartz FX from SKK in any year during the term of the agreement, SKK shall have the right to make our promotion and distribution right non-exclusive, unless we make a payment to SKK equal to the lesser of the purchase price for the shortfall amount or one million dollars.

Either party may terminate the agreement on written notice for the other party's material breach that remains uncured for sixty days after receipt of prior written notice thereof. SKK may terminate the agreement immediately if we fail to pay undisputed amounts due under the agreement within a certain time of receiving written notice of our nonpayment. Either party may terminate the agreement for the other party's bankruptcy or insolvency-related events. We may terminate the agreement upon fifteen days written notice if we are enjoined from selling Supartz FX in any part of the United States for at least six months due to patent infringement.

Exclusive distribution agreement for GelSyn-3

In February 2016, we entered into an agreement with IBSA where we obtained the exclusive distribution rights for GelSyn-3 in the United States, as well as an assignment of the GelSyn-3 trademark. IBSA will maintain the ownership of all regulatory, technical and clinical data, among other information and documentation, concerning GelSyn-3. Under the agreement, IBSA will supply GelSyn-3 on a purchase order basis, based on the amounts of GelSyn-3 that we require as set forth in rolling forecasts. We will be subject to certain annual minimum purchase requirements. We are obligated to use commercially reasonable efforts to launch GelSyn-3, and we are obligated to diligently market GelSyn-3 in the United States. Additionally, during the term of the agreement, IBSA may not actively promote certain competing products in the United States.

The term of the IBSA agreement continues in effect for ten years until February 2026. Thereafter, the agreement will be automatically renewed for consecutive five year terms, unless either we or IBSA gives notice of termination at least six months prior to the expiration of the initial term or any renewal term. If we fail to meet at least 50% of the annual minimum purchase requirement in any year during the term of the agreement, IBSA will have the right to either demand payment for a percentage of the purchase price for the shortfall amount or terminate this agreement upon 30 days prior notice to us.

Either party may terminate the agreement on written notice for the other party's material breach that remains uncured for thirty days after receipt of prior written notice. Either party may terminate the agreement upon written notice for the other party's bankruptcy or insolvency-related events. IBSA may terminate this agreement upon 30 days prior notice to us if we fail to meet at least 50% of the annual minimum purchase requirement in any year during the term of the agreement, but not if we cure by issuing purchase orders for certain amount within the 30 day period.

Manufacturing and supply

We assemble, inspect, test and package our Exogen system at our facility in Cordova, Tennessee with components supplied by third-party suppliers. Our Exogen system includes a transducer which is a key component that is supplied by a single-source supplier. We perform inspections of these components before use in our manufacturing operations.

Our HA viscosupplementation therapies and certain of our Surgical products, including OsteoAMP, are manufactured exclusively by single-source third-party manufacturers, pursuant to multi-year supply agreements. We work closely with each of our manufacturing partners and provide them with a forecast, which enables them to better capacity plan and sequence their production efficiently. For Supartz FX, we are subject to certain annual minimum purchase requirements based on a percentage of our Supartz FX annual forecast. For Durolane, we are subject to minimum order volumes for each order and purchase amounts are also based in part on forecasts. For GelSyn-3, we will be subject to certain annual minimum purchase requirements and purchase amounts will be based on rolling forecasts. We do not have guaranteed minimum orders for OsteoAMP, which are purchased pursuant to purchase orders. We are also subject to a supply agreement with Advanced Biologics to purchase OsteoAMP until October 2018.

We believe our manufacturing operations are in compliance with regulations mandated by the FDA. We are an FDA-registered medical device manufacturer. Our manufacturing facilities and processes are subject to periodic inspections and audits by various federal, state and foreign regulatory agencies. Our facility was last inspected in April 2015 by the FDA and August 2015 by the British Standards Institute, or BSI Group, our Notified Body, and no major nonconformance reports were issued as a result of those inspection.

We intend to maintain sufficient supplies of the products and components from these single-source suppliers in the event that one or more of these suppliers were to encounter certain interruptions in supply.

Government regulation

Government regulation of medical devices

Our medical devices are subject to regulation by numerous government agencies, including the FDA and comparable foreign agencies. The FDA and other U.S. and foreign governmental agencies regulate, among other things, with respect to medical devices:

- design, development and manufacturing;
- testing, labeling, content and language of instructions for use and storage;
- clinical trials;
- product safety;
- marketing, sales and distribution;
- premarket clearance and approval;
- record keeping procedures;
- advertising and promotion;
- recalls and field safety corrective actions;
- postmarket surveillance, including reporting of deaths or serious injuries and malfunctions that, if they were to recur, could lead to death or serious injury;

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- postmarket approval studies; and
- product import and export.

The regulations to which we are subject are complex and have tended to become more stringent over time. Regulatory changes could result in restrictions on our ability to carry on or expand our operations, higher than anticipated costs or lower than anticipated sales.

FDA premarket clearance and approval requirements

Each medical device we seek to commercially distribute in the United States must first receive 510(k) clearance or PMA from FDA, unless specifically exempted by the agency. The FDA classifies all medical devices into one of three classes. Devices deemed to pose lower risk are categorized as either Class I or Class II, which requires the manufacturer to submit to the FDA a 510(k) pre-market notification requesting clearance of the device for commercial distribution in the United States. Some low risk devices are exempted from this requirement. Devices deemed by the FDA to pose the greatest risk, such as life sustaining, life-supporting or implantable devices, or devices deemed not substantially equivalent to a previously 510(k) cleared device are categorized as Class III, generally requiring PMA.

510(k) clearance process

To obtain 510(k) clearance, we must submit a premarket notification to the FDA demonstrating the proposed device to be substantially equivalent to a previously cleared 510(k) device, a device that was in commercial distribution before May 28, 1976 for which the FDA has not yet called for the submission of PMA applications, or is a device that has been reclassified from Class III to either Class II or I. In rare cases, Class III devices may be cleared through the 510(k) process as described in the prior paragraph. The FDA's 510(k) clearance process usually takes from three to twelve months from the date the application is submitted and filed with the FDA, but may take significantly longer and clearance is never assured. Although many 510(k) premarket notifications are cleared without clinical data, in some cases, the FDA requires significant clinical data to support substantial equivalence. In reviewing a premarket notification, the FDA may request additional information, including clinical data, which may significantly prolong the review process.

After a device receives 510(k) clearance, any subsequent modification of the device that could significantly affect its safety or effectiveness, or that would constitute a major change in its intended use, will require a new 510(k) clearance or could require PMA. The FDA requires each manufacturer to make this determination initially, but the FDA may review any such decision and may disagree with a manufacturer's determination. If the FDA disagrees with a manufacturer's determination, the FDA may require the manufacturer to cease marketing and/or recall the modified device until 510(k) clearance or PMA is obtained. We have modified aspects of some of our devices since receiving regulatory clearance. We concluded that some of those modifications could not significantly affect the safety or efficacy of the device, and therefore, that new 510(k) clearances or PMAs were not required. We have also obtained new 510(k) clearances from the FDA for other modifications to our devices. In the future, we may make additional modifications to our products after they have received FDA clearance or approval, and in appropriate circumstances, determine that new clearance or approval is unnecessary. However, the FDA may disagree with our determination and if the FDA requires us to seek 510(k) clearance or PMA for any modifications to a previously cleared product, we may be required to cease marketing or recall the modified device until we obtain the required clearance or approval. Under these circumstances, we may also be subject to significant regulatory fines or other penalties. In addition, the FDA is currently evaluating the 510(k) process and may make substantial changes to industry requirements, including which devices are eligible for 510(k) clearance, the ability to rescind previously granted 510(k)s and additional requirements that may significantly impact the process.

Some of our products have obtained 510(k) premarket clearance from the FDA, such as Signafuse Bioactive Bone Graft Putty, Interface Bioactive Bone Graft and Signafuse Mineralized Collagen Scaffold.

Premarket approval process

A PMA application must be submitted if the medical device is in Class III (although the FDA has the discretion to continue to allow certain pre-amendment Class III devices to use the 510(k) process) or cannot be cleared through the 510(k) process. A PMA application must be supported by, among other things, extensive technical, preclinical, clinical trials, manufacturing and labeling data to demonstrate to the FDA's satisfaction the safety and effectiveness of the device.

After a PMA application is submitted and filed, the FDA begins an in-depth review of the submitted information, which typically takes between one and three years, but may take significantly longer. During this review period, the FDA may request additional information or clarification of information already provided. Also during the review period, an advisory panel of experts from outside the FDA will usually be convened to review and evaluate the application and provide recommendations to the FDA as to the approvability of the device. In addition, the FDA will conduct a pre-approval inspection of the manufacturing facility to ensure compliance with Quality System Regulation, or QSR, which impose elaborate design development, testing, control, documentation and other quality assurance procedures in the design and manufacturing process. The FDA may approve a PMA with post-approval conditions intended to ensure the safety and effectiveness of the device including, among other things, restrictions on labeling, promotion, sale and distribution and collection of long-term follow-up data from patients in the clinical study that supported approval. Failure to comply with the conditions of approval can result in materially adverse enforcement action, including the loss or withdrawal of the approval. New PMAs or PMA supplements are required for significant modifications to the manufacturing process, labeling of the product and design of a device that is approved through the PMA process. PMA supplements often require submission of the same type of information as a PMA, except that the supplement is limited to information needed to support any changes from the device covered by the original PMA, and may not require as extensive clinical data or the convening of an advisory panel.

Our Active Healing Therapies, including our Exogen system, Supartz FX and GelSyn-3, have obtained PMA approval.

Clinical trials

A clinical trial is typically required to support a PMA and is sometimes required for a 510(k) premarket notification. In the United States, clinical trials generally require submission of an application for an Investigational Device Exemption, or IDE, to the FDA. The IDE application must be supported by appropriate data, such as animal and laboratory testing results, showing that it is safe to test the device in humans and that the investigational protocol is scientifically sound. The IDE application must be approved in advance by the FDA for a specified number of patients, unless the product is deemed a non-significant risk device and eligible for more abbreviated IDE requirements. Clinical trials for a significant risk device may begin once the IDE application is approved by the FDA as well as the appropriate institutional review boards, or IRBs, at the clinical trial sites, and the informed consent of the patients participating in the clinical trial is obtained. After a trial begins, the FDA may place it on hold or terminate it if, among other reasons, it concludes that the clinical subjects are exposed to an unacceptable health risk. Any trials we conduct must be conducted in accordance with FDA regulations as well as other federal regulations and state laws concerning human subject protection and privacy. Moreover, the results of a clinical trial may not be sufficient to obtain clearance or approval of the product.

Pervasive and continuing FDA regulation

After a medical device is placed on the market, numerous FDA regulatory requirements apply, including, but not limited to the following:

- Quality System Regulation, which requires manufacturers to follow design, testing, control, documentation and other quality assurance procedures during the manufacturing process;
- Establishment Registration, which requires establishments involved in the production and distribution of medical devices, intended for commercial distribution in the United States, to register with the FDA;
- Medical Device Listing, which requires manufacturers to list the devices they have in commercial distribution with the FDA;
- Labeling regulations, which prohibit “misbranded” devices from entering the market, as well as prohibit the promotion of products for unapproved or “off-label” uses and impose other restrictions on labeling;
- Postmarket surveillance including Medical Device Reporting, which requires manufacturers to report to the FDA if their device may have caused or contributed to a death or serious injury, or malfunctioned in a way that would likely cause or contribute to a death or serious injury if it were to recur; and
- Corrections and Removal Reporting regulations, which require that manufacturers report to the FDA field corrections and product recalls or removals if undertaken to reduce a risk to health posed by the device or to remedy a violation of the FDCA that may present a risk to health.

The FDA enforces these requirements by inspection and market surveillance. Failure to comply with applicable regulatory requirements may result in enforcement action by the FDA, which may include one or more of the following sanctions:

- untitled letters or warning letters;
- fines, injunctions and civil penalties;
- mandatory recall or seizure of our products;
- administrative detention or banning of our products;
- operating restrictions, partial suspension or total shutdown of production;
- refusing our request for 510(k) clearance or PMA for new product versions;
- revocation of 510(k) clearance or PMAs previously granted; and
- criminal prosecution and penalties.

International regulation of medical devices

Sales of medical devices outside the United States are subject to foreign government regulations, which vary substantially from country to country. In order to market our products in other countries, we must obtain regulatory approvals and comply with extensive safety and quality regulations in other countries. The time required to obtain approval by a foreign country may be longer or shorter than that required for FDA approval, and the requirements may differ significantly.

European Union’s regulation of medical devices

The European Union, or EU, has adopted legislation, in the form of directives to be implemented in each Member State, concerning the regulation of medical devices within the European Union. The directives include, among others, the Medical Device Directive (Council Directive 93/42/EEC) that establishes certain requirements, i.e. the essential requirements, with which medical devices must comply before they can be commercialized in the EEA (which is comprised of the Member States of the EU plus Norway, Liechtenstein and

Iceland). Under the EU Medical Device Directive, medical devices are classified into four Classes, I, IIa, IIb, and III, with Class I being the lowest risk and Class III being the highest risk. Under the Medical Device Directive, a competent authority is nominated by the government of each Member State to monitor and ensure compliance with the Directive. To demonstrate compliance of their medical devices with the essential requirements, manufacturers must undergo a conformity assessment procedure, which varies according to the type of medical device and its classification. Except for certain types of low risk medical devices (Class I non-sterile, non-measuring devices), where the manufacturer can issue an EC Declaration of Conformity based on a self-assessment of the conformity of its products with the essential requirements of the Medical Devices Directive, a conformity assessment procedure requires the intervention of an organization accredited by a Member State of the EEA to conduct conformity assessments, a so-called Notified Body. The Notified Body would typically audit and examine the quality system for the manufacture, design and final inspection of the medical devices before issuing a certification demonstrating compliance with the essential requirements. Medical devices that comply with the essential requirements are entitled to bear the CE mark, which is an abbreviation for Conformité Européenne or European Conformity. Medical devices properly bearing the CE mark may be commercially distributed throughout the EEA. We have received CE certification from the British Standards Institute, a United Kingdom Notified Body, for conformity with the EU Medical Device Directive allowing us to place the CE mark on our Durolane and Exogen products. Additional premarket approvals in individual EEA countries are sometimes required prior to marketing of a product. Failure to maintain the CE mark would preclude us from selling our products in the EEA, as could failure to comply with the specific requirements of the Member States.

In September 2012, the European Commission published proposals for the revision of the EU regulatory framework for medical devices. The proposal would replace the Medical Devices Directive with a new regulation, or the Medical Devices Regulation. Unlike the Directives that must be implemented into national laws, the Medical Devices Regulation would be directly applicable in all EEA Member States and so is intended to eliminate current national differences in regulation of medical devices. In October 2013, the European Parliament approved a package of reforms to the European Commission's proposals. Under the revised proposals, only designated "special notified bodies" would be entitled to conduct conformity assessments of high-risk devices. These special notified bodies will need to notify the European Commission when they receive an application for a conformity assessment for a new high-risk device. The European Commission will then forward the notification and the accompanying documents on the device to the Medical Devices Coordination Group, or MDCG, (a new, yet to be created, body chaired by the European Commission, and representatives of Member States) for an opinion.

If finally adopted, the Medical Devices Regulation is expected to enter into force in 2016 and become applicable three years thereafter. The adoption of the Medical Devices Regulation may, however, be materially delayed. In its current form it would, among other things, also impose additional reporting requirements on manufacturers of high risk medical devices, impose an obligation on manufacturers to appoint a "qualified person" responsible for regulatory compliance, and provide for more strict clinical evidence requirements. These new rules and procedures may result in increased regulatory oversight of certain devices and this may, in turn, increase the costs, time and requirements that need to meet in order to maintain or place such devices on the EEA market.

Further, the advertising and promotion of our products in the EEA is subject to the laws of individual EEA Member States implementing the EU Medical Devices Directive, Directive 2006/114/EC concerning misleading and comparative advertising, and Directive 2005/29/EC on unfair commercial practices, as well as other EEA Member State laws governing the advertising and promotion of medical devices. These laws may limit or restrict the advertising and promotion of our products to the general public and may impose limitations on our promotional activities with healthcare professionals.

Some of our Active Healing Therapies, such as our Exogen system and Durolane, bear the CE mark.

Other countries' regulation of medical devices

Many other countries have specific requirements for classification, registration and postmarketing surveillance that are independent of the countries already listed. We obtain what we believe are the appropriate clearances for our Exogen system and Durolane and conduct our business in accordance with the applicable laws of each country. This landscape is constantly changing and we could be found in violation if we interpret the laws incorrectly or fail to keep pace with changes. In the event of either of these occurrences, we could be instructed to recall products, cease distribution and/or be subject to civil or criminal penalties.

Government regulation of HCT/Ps

Some of our products, such as OsteoAMP, are regulated as human cells, tissues and cellular and tissue-based products, or HCT/Ps. Section 361 of the Public Health Service Act, or PHSA, authorizes the FDA to issue regulations to prevent the introduction, transmission or spread of communicable disease. HCT/Ps regulated as "361" HCT/Ps are subject to requirements relating to registering facilities and listing products with the FDA, screening and testing for tissue donor eligibility, Good Tissue Practice when processing, storing, labeling, and distributing HCT/Ps, including required labeling information, stringent record keeping, and adverse event reporting, among other applicable requirements and laws. Section 361 HCT/Ps do not require 510(k) clearance, PMA approval, BLAs, or other premarket authorization from the FDA before marketing. We believe our OsteoAMP product is regulated as a Section 361 HCT/P, and therefore have not sought or obtained 510(k) clearance, PMA approval, or licensure through a BLA. However, the FDA's CDRH recently issued us a letter in which it asserted that OsteoAMP meets the definition of a medical device, and requested that we provide CDRH with information in support of our position that OsteoAMP does not require 510(k) clearance or PMA approval. We believe that CDRH's assertion is unfounded and inconsistent with a 2011 letter from the FDA concluding that OsteoAMP meets the criteria for regulation solely as a Section 361 HCT/P. We are in the process of responding to the FDA. See "Risk factors – Our HCT/P products are subject to extensive government regulation and our failure to comply with these requirements could cause our business to suffer."

Government regulation of combination products

We expect that certain of our products under development will be regulated as combination products, which means that they are comprised of two or more different components that, if marketed individually, would be subject to different regulatory pathways and would require approval of independent marketing applications by the FDA. A combination product, however, is assigned to a Center within the FDA that will have primary jurisdiction over its regulation based on a determination of the combination product's primary mode of action, which is the single mode of action that provides the most important therapeutic action. In that case, the combination product would be regulated as a drug and subject to the review of the FDA's Center for Drug Evaluation and Research, or CDER, who will have primary jurisdiction over premarket development.

Government regulation of drugs

The process required by the FDA before a drug may be marketed in the United States generally involves the following:

- completion of preclinical laboratory tests, animal studies and formulation studies in compliance with the FDA's good laboratory practice, or GLP, regulations;
- submission to the FDA of an investigational new drug application, or IND, which must become effective before human clinical trials may begin;
- approval by an independent IRB at each clinical site before each trial may be initiated;

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- performance of adequate and well-controlled human clinical trials in accordance with good clinical practice, or GCP, requirements to establish the safety and efficacy of the proposed drug product for each indication;
- submission to the FDA of a new drug application, or NDA;
- satisfactory completion of an FDA advisory committee review, if applicable;
- satisfactory completion of an FDA inspection of the manufacturing facility or facilities at which the product is produced to assess compliance with current good manufacturing practice, or cGMP, requirements and to assure that the facilities, methods and controls are adequate to preserve the drug's identity, strength, quality and purity; and
- FDA review and approval of the NDA.

Preclinical studies

Preclinical studies include laboratory evaluation of product chemistry, toxicity and formulation, as well as animal studies to assess potential safety and efficacy. An IND sponsor must submit the results of the preclinical tests, together with manufacturing information, analytical data and any available clinical data or literature, among other things, to the FDA as part of an IND. Some preclinical testing may continue even after the IND is submitted. An IND automatically becomes effective 30 days after receipt by the FDA, unless before that time the FDA raises concerns or questions related to one or more proposed clinical trials and places the clinical trial on a clinical hold. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical trial can begin. As a result, submission of an IND may not result in the FDA allowing clinical trials to commence.

Clinical trials

Clinical trials involve the administration of the investigational new drug to human subjects under the supervision of qualified investigators in accordance with GCP requirements, which include the requirement that all research subjects provide their informed consent in writing for their participation in any clinical trial. Clinical trials are conducted under protocols detailing, among other things, the objectives of the trial, the parameters to be used in monitoring safety, and the effectiveness criteria to be evaluated. A protocol for each clinical trial and any subsequent protocol amendments must be submitted to the FDA as part of the IND. In addition, an IRB at each institution participating in the clinical trial must review and approve the plan for any clinical trial before it commences at that institution. Information about certain clinical trials must be submitted within specific timeframes to the National Institutes of Health, or NIH, for public dissemination on their www.clinicaltrials.gov website.

Human clinical trials are typically conducted in three sequential phases, which may overlap or be combined:

- *Phase 1:* The drug is initially introduced into healthy human subjects or patients with the target disease or condition and tested for safety, dosage tolerance, absorption, metabolism, distribution, excretion and, if possible, to gain an early indication of its effectiveness.
- *Phase 2:* The drug is administered to a limited patient population to identify possible adverse effects and safety risks, to preliminarily evaluate the efficacy of the product for specific targeted diseases and to determine dosage tolerance and optimal dosage.
- *Phase 3:* The drug is administered to an expanded patient population, generally at geographically dispersed clinical trial sites, in well-controlled clinical trials to generate enough data to statistically evaluate the efficacy and safety of the product for approval, to establish the overall risk-benefit profile of the product, and to provide adequate information for the labeling of the product.

Progress reports detailing the results of the clinical trials must be submitted at least annually to the FDA and more frequently if serious adverse events occur. Phase 1, Phase 2 and Phase 3 clinical trials may not be completed successfully within any specified period, or at all. Furthermore, the FDA or the sponsor may suspend or terminate a clinical trial at any time on various grounds, including a finding that the research subjects are being exposed to an unacceptable health risk. Similarly, an IRB can suspend or terminate approval of a clinical trial at its institution if the clinical trial is not being conducted in accordance with the IRB's requirements or if the drug has been associated with unexpected serious harm to patients.

Marketing approval

Assuming successful completion of the required clinical testing, the results of the preclinical and clinical studies, together with detailed information relating to the product's chemistry, manufacture, controls and proposed labeling, among other things, are submitted to the FDA as part of an NDA requesting approval to market the product for one or more indications. In most cases, the submission of an NDA is subject to a substantial application user fee. Under the Prescription Drug User Fee Act, or PDUFA, guidelines that are currently in effect, the FDA has a goal of ten months from the date of "filing" of a standard NDA for a new molecular entity to review and act on the submission. This review typically takes twelve months from the date the NDA is submitted to FDA because the FDA has approximately two months to make a "filing" decision.

The FDA also may require submission of a risk evaluation and mitigation strategy, or REMS, plan to ensure that the benefits of the drug outweigh its risks. The REMS plan could include medication guides, physician communication plans, assessment plans, and/or elements to assure safe use, such as restricted distribution methods, patient registries, or other risk minimization tools.

The FDA conducts a preliminary review of all NDAs within the first 60 days after submission, before accepting them for filing, to determine whether they are sufficiently complete to permit substantive review. The FDA may request additional information rather than accept an NDA for filing. In this event, the application must be resubmitted with the additional information. The resubmitted application is also subject to review before the FDA accepts it for filing. Once the submission is accepted for filing, the FDA begins an in-depth substantive review. The FDA reviews an NDA to determine, among other things, whether the drug is safe and effective and whether the facility in which it is manufactured, processed, packaged or held meets standards designed to assure the product's continued safety, quality and purity.

The FDA may refer an application for a novel drug to an advisory committee. An advisory committee is a panel of independent experts, including clinicians and other scientific experts, that reviews, evaluates and provides a recommendation as to whether the application should be approved and under what conditions. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions.

Before approving an NDA, the FDA typically will inspect the facility or facilities where the product is manufactured. The FDA will not approve an application unless it determines that the manufacturing processes and facilities are in compliance with cGMP requirements and adequate to assure consistent production of the product within required specifications. Additionally, before approving an NDA, the FDA may inspect one or more clinical trial sites to assure compliance with GCP requirements.

After evaluating the NDA and all related information, including the advisory committee recommendation, if any, and inspection reports regarding the manufacturing facilities and clinical trial sites, the FDA may issue an approval letter, or, in some cases, a complete response letter. A complete response letter generally contains a statement of specific conditions that must be met in order to secure final approval of the NDA and may require additional clinical or preclinical testing in order for FDA to reconsider the application. Even with submission of

this additional information, the FDA ultimately may decide that the application does not satisfy the regulatory criteria for approval. If and when those conditions have been met to the FDA's satisfaction, the FDA will typically issue an approval letter. An approval letter authorizes commercial marketing of the drug with specific prescribing information for specific indications.

Even if the FDA approves a product, it may limit the approved indications for use of the product, require that contraindications, warnings or precautions be included in the product labeling, require that post-approval studies, including Phase 4 clinical trials, be conducted to further assess a drug's safety after approval, require testing and surveillance programs to monitor the product after commercialization, or impose other conditions, including distribution and use restrictions or other risk management mechanisms under a REMS, which can materially affect the potential market and profitability of the product. The FDA may prevent or limit further marketing of a product based on the results of postmarketing studies or surveillance programs. After approval, some types of changes to the approved product, such as adding new indications, manufacturing changes, and additional labeling claims, are subject to further testing requirements and FDA review and approval.

Post-approval requirements

Drugs manufactured or distributed pursuant to FDA approvals are subject to pervasive and continuing regulation by the FDA, including, among other things, requirements relating to recordkeeping, periodic reporting, product sampling and distribution, advertising and promotion and reporting of adverse experiences with the product. After approval, most changes to the approved product, such as adding new indications or other labeling claims are subject to prior FDA review and approval. There also are continuing, annual user fee requirements for any marketed products and the establishments at which such products are manufactured, as well as new application fees for supplemental applications with clinical data.

The FDA may impose a number of post-approval requirements as a condition of approval of an NDA. For example, the FDA may require postmarketing testing, including Phase 4 clinical trials, and surveillance to further assess and monitor the product's safety and effectiveness after commercialization.

In addition, drug manufacturers and other entities involved in the manufacture and distribution of approved drugs are required to register their establishments with the FDA and state agencies, and are subject to periodic unannounced inspections by the FDA and these state agencies for compliance with cGMP requirements. Changes to the manufacturing process are strictly regulated and often require prior FDA approval before being implemented. FDA regulations also require investigation and correction of any deviations from cGMP requirements and impose reporting and documentation requirements upon the sponsor and any third-party manufacturers that the sponsor may decide to use. Accordingly, manufacturers must continue to expend time, money, and effort in the area of production and quality control to maintain cGMP compliance.

Once an approval is granted, the FDA may withdraw the approval if compliance with regulatory requirements and standards is not maintained or if problems occur after the product reaches the market. Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or with manufacturing processes, or failure to comply with regulatory requirements, may result in mandatory revisions to the approved labeling to add new safety information; imposition of postmarket studies or clinical trials to assess new safety risks; or imposition of distribution or other restrictions under a REMS program. Other potential consequences include, among other things:

- restrictions on the marketing or manufacturing of the product, complete withdrawal of the product from the market or product recalls;
- fines, warning letters or holds on post-approval clinical trials;

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- refusal of the FDA to approve pending NDAs or supplements to approved NDAs, or suspension or revocation of product approvals;
- product seizure or detention, or refusal to permit the import or export of products; or
- injunctions or the imposition of civil or criminal penalties.

The FDA strictly regulates marketing, labeling, advertising and promotion of products that are placed on the market. Drugs may be promoted only for the approved indications and in accordance with the provisions of the approved label. The FDA and other agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses, and a company that is found to have improperly promoted off-label uses may be subject to significant liability.

In addition, to the extent we seek approval for our products in development in other countries, we would need to comply with numerous and varying regulatory requirements of such other countries and jurisdictions regarding quality, safety, and efficacy that govern, among other things, clinical trials, manufacturing, marketing authorization, commercial sales, and distribution of our products, regardless of whether or not we have obtained FDA approval for such product. Although many of the issues discussed above with respect to the United States apply similarly in the context of other countries in which we may seek approval, the approval process varies among countries and jurisdictions and can involve different amounts of product testing and additional administrative review periods. For example, in Europe, a sponsor must submit a clinical trial application, or CTA, much like an IND prior to the commencement of human clinical trials. A CTA must be submitted to each national health authority and an independent ethics committee. It is our intent to complete the requisite clinical studies and obtain coverage and reimbursement approval in countries where it makes economic sense to do so. The time required to obtain approval in other countries and jurisdictions might differ from or be longer than that required to obtain FDA approval. Regulatory approval in one country or jurisdiction does not ensure regulatory approval in another, but a failure or delay in obtaining regulatory approval in one country or jurisdiction may negatively affect the regulatory approval process in other countries.

Anti-kickback, false claims and other healthcare laws

In addition to FDA restrictions on the marketing of pharmaceutical, biological and medical device products, we are also subject to healthcare regulation and enforcement by the federal government and the states and foreign governments and authorities in the locations in which we conduct our business. These other agencies include, without limitation, the Centers for Medicare and Medicaid Services, or CMS, other divisions of the U.S. Department of Health and Human Services, the U.S. Department of Justice and individual U.S. Attorney offices within the Department of Justice, as well as state and local governments. Such agencies enforce a variety of laws which include, without limitation, state and federal anti-kickback, fraud and abuse, false claims, data privacy and security, and physician payment transparency laws and regulations.

The federal Anti-Kickback Statute prohibits, among other things, any person or entity from knowingly and willfully offering, paying, soliciting or receiving any remuneration (including any kickback, bribe or rebate), directly or indirectly, overtly or covertly, to induce or in return for purchasing, leasing, ordering or arranging for or recommending the purchase, lease or order of any good, facility, item or service reimbursable, in whole or in part, by Medicare, Medicaid or other federal healthcare programs. The term “remuneration” has been broadly interpreted to include anything of value, including cash, improper discounts, and free or reduced price items and services. Among other things, the Anti-Kickback Statute has been interpreted to apply to arrangements between pharmaceutical, biotechnology and medical device manufacturers on the one hand and prescribers, purchasers and formulary managers on the other. Although there are a number of statutory exceptions and regulatory safe harbors protecting some common activities from prosecution, the exceptions

and safe harbors are drawn narrowly. Practices that involve remuneration that may be alleged to be intended to induce prescribing, purchases or recommendations may be subject to scrutiny if they do not meet the requirements of a statutory or regulatory exception or safe harbor. Failure to meet all of the requirements of a particular applicable statutory exception or regulatory safe harbor does not make the conduct per se illegal under the Anti-Kickback Statute. Instead, the legality of the arrangement will be evaluated on a case-by-case basis based on a cumulative review of all of its facts and circumstances. Several courts have interpreted the statute's intent requirement to mean that if any one purpose of an arrangement involving remuneration is to induce referrals of federal healthcare covered business, the Anti-Kickback Statute has been violated. In addition, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation. Further, a claim including items or services resulting from a violation of the federal Anti-Kickback Statute also constitutes a false or fraudulent claim for purposes of the federal civil False Claims Act.

The federal false claims and civil monetary penalties laws, including the civil False Claims Act, prohibit, among other things, any person or entity from knowingly presenting, or causing to be presented, a false or fraudulent claim for payment to or approval by the federal government or knowingly making, using or causing to be made or used a false record or statement material to a false or fraudulent claim to the federal government. A claim includes "any request or demand" for money or property presented to the U.S. government. Actions under the False Claims Act may be brought by the Attorney General or as a qui tam action by a private individual in the name of the U.S. government. Violations of the False Claims Act can result in very significant monetary penalties and treble damages. The federal government is using the False Claims Act, and the accompanying threat of significant liability, in its investigation and prosecution of pharmaceutical, biotechnology and medical device companies throughout the country, for example, in connection with the promotion of products for unapproved uses and other sales and marketing practices. The government has obtained multi-million and multi-billion dollar settlements under the False Claims Act in addition to individual criminal convictions under applicable criminal statutes. In addition, the federal civil monetary penalties statute imposes penalties against any person or entity that, among other things, is determined to have presented or caused to be presented a claim to a federal health program that the person knows or should know is for an item or service that was not provided as claimed or is false or fraudulent. Given the significant size of actual and potential settlements, it is expected that governmental authorities will continue to devote substantial resources to investigating healthcare providers' and manufacturers' compliance with applicable fraud and abuse laws. For drugs that are covered under Medicare Part B, the manufacturer must report average sales price, or ASP, to CMS on a quarterly basis. Failure to report this information in a timely and accurate manner can lead to substantial civil and criminal penalties and to liability under the False Claims Act.

HIPAA created additional federal criminal statutes that prohibit, among other things, knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program, including private third-party payors, knowingly and willfully embezzling or stealing from a healthcare benefit program, willfully obstructing a criminal investigation of a healthcare offense, and knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items or services. Similar to the federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of these statutes or specific intent to violate them in order to have committed a violation.

Also, many states have similar fraud and abuse statutes or regulations that may be broader in scope and may apply regardless of payor, in addition to items and services reimbursed under Medicaid and other state programs.

In addition, a person who offers or transfers to a Medicare or Medicaid beneficiary any remuneration, including waivers of co-payments and deductible amounts (or any part thereof), that the person knows or should know is likely to influence the beneficiary's selection of a particular provider, practitioner or supplier of Medicare or Medicaid payable items or services may be liable for civil monetary penalties of up to \$10,000 for each wrongful act. Moreover, in certain cases, providers who routinely waive copayments and deductibles for Medicare and Medicaid beneficiaries can also be held liable under the Anti-Kickback Statute and civil False Claims Act, which can impose additional penalties associated with the wrongful act. One of the statutory exceptions to the prohibition is non-routine, unadvertised waivers of copayments or deductible amounts based on individualized determinations of financial need or exhaustion of reasonable collection efforts. The Office of Inspector General of the Department of Health and Human Services emphasizes, however, that this exception should only be used occasionally to address special financial needs of a particular patient. Although this prohibition applies only to federal healthcare program beneficiaries, the routine waivers of copayments and deductibles offered to patients covered by commercial payers may implicate applicable state laws related to, among other things, unlawful schemes to defraud, excessive fees for services, tortious interference with patient contracts and statutory or common law fraud. To the extent our patient assistance programs are found to be inconsistent with applicable laws, we may be required to restructure or discontinue such programs, or be subject to other significant penalties.

Additionally, there has been a recent trend of increased federal and state regulation of payments made to physicians and certain other healthcare providers. The Patient Protection and Affordable Care Act, as amended by the Health Care and Education and Reconciliation Act, or collectively, the Affordable Care Act, imposed, among other things, new annual reporting requirements through the Physician Payments Sunshine Act for covered manufacturers for certain payments and "transfers of value" provided to physicians and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members. Failure to submit timely, accurately and completely the required information for all payments, transfers of value and ownership or investment interests may result in civil monetary penalties of up to an aggregate of \$150,000 per year and up to an aggregate of \$1 million per year for "knowing failures." Covered manufacturers must submit reports by the 90th day of each calendar year. In addition, certain states require implementation of compliance programs and compliance with the industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government, impose restrictions on marketing practices, and/or require tracking and reporting of gifts, compensation and other remuneration or items of value provided to physicians and other healthcare professionals and entities.

These laws impact the kinds of financial arrangements we may have with hospitals, physicians or other potential purchasers of our products. They particularly impact how we structure our sales offerings, including discount practices, customer support, education and training programs, physician consulting, research grants and other arrangements. If our operations are found to be in violation of any of the health regulatory laws described above or any other laws or regulations that apply to us, we may be subject to penalties, including, without limitation, potentially significant criminal, civil and/or administrative penalties, damages, fines, disgorgement, exclusion from participation in government healthcare programs, imprisonment, contractual damages, reputational harm, administrative burdens, diminished profits and future earnings, and the curtailment or restructuring of our operations.

As a result of our sale or distribution of products in a foreign country, we may be subject to similar foreign laws and regulations, which may include, for instance, applicable postmarketing requirements, including safety surveillance, anti-fraud and abuse laws, and implementation of corporate compliance programs and reporting of payments or other transfers of value to healthcare professionals.

We participate in state government-managed Medicaid programs as well as certain other qualifying federal and state government programs where discounts and mandatory rebates are provided to participating state and

local government entities. In connection with several of these government programs, we are required to report prices to various government agencies. Pricing calculations vary among programs. The calculations are complex and are often subject to interpretation by the reporting entities, government agencies and the courts. Our methodologies for calculating these prices could be challenged under false claims laws or other laws. We could make a mistake in calculating reported prices and required discounts, which could result in retroactive liability to government agencies. Government agencies may also make changes in program interpretations, requirements or conditions of participation, some of which may have implications for amounts previously estimated or paid. If we make these mistakes or if governmental agencies make these changes, we could face, in addition to prosecution under federal and state false claims laws, substantial liability and civil monetary penalties, exclusion of our products from reimbursement under government programs, criminal fines or imprisonment, or prosecutors may impose a Corporate Integrity Agreement, Deferred Prosecution Agreement, or similar arrangement.

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003, or the MMA, requires that manufacturers report data to CMS on pricing of covered drugs reimbursed under Medicare Part B. These are generally drugs, such as injectable products, that are administered "incident to" a physician service, and in general are not self-administered. Effective January 1, 2005, ASP became the basis for reimbursement to physicians and suppliers for drugs and biologicals covered under Medicare Part B, replacing the average wholesale price, or AWP, provided and published by pricing services. In general, we must comply with all reporting requirements for any drug that is separately reimbursable under Medicare. The Supartz FX product is reimbursed under Medicare Part B and, as a result, we provide ASP data on this product to CMS on a quarterly basis.

Manufacturing requirements

Manufacturers of medical devices are required to comply with FDA manufacturing requirements contained in the FDA's cGMP set forth in the quality system regulations promulgated under section 520 of the FDCA. cGMP regulations require, among other things, quality control and quality assurance as well as the corresponding maintenance of records and documentation. Failure to comply with statutory and regulatory requirements subjects a manufacturer to possible legal or regulatory action, including the seizure or recall of products, injunctions, consent decrees placing significant restrictions on or suspending manufacturing operations, and civil and criminal penalties. Adverse experiences with the product must be reported to the FDA and could result in the imposition of marketing restrictions through labeling changes or in product withdrawal. Product approvals may be withdrawn if compliance with regulatory requirements is not maintained or if problems concerning safety or efficacy of the product occur following the approval. We expect to use third-party manufacturers to manufacture our products (other than our Exogen system) for the foreseeable future. We will therefore be dependent on their compliance with these requirements to market our products. We work closely with our third-party manufacturers to assure that our products are in compliance with these regulations.

In the EU, the manufacture of medical devices is subject to good manufacturing practice, or GMP, as set forth in the relevant laws and guidelines of the EU and its Member States. Compliance with GMP is generally assessed by the competent regulatory authorities. Typically, quality system evaluation is performed by a Notified Body, which also recommends to the relevant competent authority for the European Community CE Marking of a device. The competent authority may conduct inspections of relevant facilities, and review manufacturing procedures, operating systems and personnel qualifications. In addition to obtaining approval for each product, in many cases each device manufacturing facility must be audited on a periodic basis by the Notified Body. Further inspections may occur over the life of the product.

Privacy and data protection laws in the United States

The Health Insurance Portability and Accountability Act of 1996, and its implementing regulations, as amended by the regulations promulgated pursuant to Health Information Technology for Economic and Clinical Health Act, or HITECH Act, which we collectively refer to as HIPAA, contain substantial restrictions and requirements with respect to the use and disclosure of certain individually identifiable health information (referred to as Protected Health Information, or PHI). These restrictions and requirements are set forth in the HIPAA Privacy, Security and Breach Notification Rules.

In some of our operations, such those involving the acceptance of payments, we are a “covered entity” under HIPAA and therefore required to comply with the Privacy, Security and Breach Notification Rules, and are subject to significant civil and criminal penalties for failure to do so. We also provide services to customers that are covered entities themselves, and we are required to provide satisfactory written assurances to these customers through written “business associate” agreements that we will provide our services in accordance with HIPAA. Failure to comply with these contractual agreements could lead to loss of customers, contractual liability to our customers, and direct action by the federal government, including penalties.

The Final Rule published by the Office for Civil Rights, or OCR, of the Department of Health and Human Services in January 2013, modified the HIPAA Privacy, Security, Breach Notification and Enforcement Rules, including revisions/additions made by the HITECH Act. The rule expanded the privacy and security requirements for business associates that create, receive, maintain or transmit protected health information for or on behalf of covered entities, increased penalties for noncompliance, and strengthened requirements for reporting of breaches of unsecured protected health information, among other changes. The rule also made business associates and their subcontractors directly liable for civil monetary penalties for impermissible uses and disclosures of protected health information. The rule became effective on March 23, 2013, and, with limited exception, covered entities and business associates covered by the rule were required to comply with most of the applicable requirements by September 23, 2013.

In addition to HIPAA, we must adhere to state patient confidentiality laws that are not preempted by HIPAA, including those that are more stringent than HIPAA requirements.

Numerous other state, federal and foreign laws, including consumer protection laws and regulations, govern the collection, dissemination, use, access to, confidentiality and security of patient health information. In addition, Congress and some states are considering new laws and regulations that further protect the privacy and security of medical records or medical information. With the recent increase in publicity regarding data breaches resulting in improper dissemination of consumer information, many states have passed laws regulating the actions that a business must take if it experiences a data breach, such as prompt disclosure to affected customers. Generally, these laws are limited to electronic data and make some exemptions for smaller breaches. Congress has also been considering similar federal legislation relating to data breaches. The FTC and states’ Attorneys General have also brought enforcement actions and prosecuted some data breach cases as unfair and/or deceptive acts or practices under the FTC Act. In addition to data breach notification laws, some states have enacted statutes and rules requiring businesses to reasonably protect certain types of personal information they hold or to otherwise comply with certain specified data security requirements for personal information. As with HIPAA, these laws may apply directly to our business or indirectly by contract when we provide services to other companies. We intend to continue to comprehensively protect all consumer data and to comply with all applicable laws regarding the protection of this data.

Privacy and data protection laws in other jurisdictions

In the EU, we are subject to laws relating to our collection, control, processing and other use of personal data (i.e. data relating to an identifiable living individual). We process personal data in relation to our operations. We process data of both our employees and our customers, including health and medical information. The data privacy regime in the EU includes the EU Data Protection Directive (95/46/EC) regarding the processing of personal data and the free movement of such data, the E-Privacy Directive 2002/58/EC and national laws implementing each of them. As each Member State of the EU has transposed the requirements laid down by this Privacy and Data Protection Directive into its own national data privacy regime, the laws therefore differ significantly by jurisdiction. In addition, on December 15, 2015, the European Commission, European Parliament and Council of the EU reached agreement on new data protection rules which will implement significant changes to the current EU data protection regime. Unlike the Privacy and Data Protection Directive, the Regulation has direct effect in each Member State, without the need for further enactment. The Regulation has a two-year implementation period. When implemented, the Regulation will likely strengthen individuals' rights and impose stricter requirements on companies processing personal data. Prior to its full implementation, we may not be able to accurately assess its full impact on our business.

The requirements include that personal data may only be collected for specified, explicit and legitimate purposes based on legal grounds set out in the local laws, and may only be processed in a manner consistent with those purposes. Personal data must also be adequate, relevant, not excessive in relation to the purposes for which it is collected, be secure, not be transferred outside of the EEA unless certain steps are taken to ensure an adequate level of protection and must not be kept for longer than necessary for the purposes of collection. To the extent that we process, control or otherwise use sensitive data relating to living individuals (for example, patients' health or medical information), more stringent rules apply, limiting the circumstances and the manner in which we are legally permitted to process that data and transfer that data outside of the EEA. In particular, in order to process such data, explicit consent to the processing (including any transfer) is usually required from the data subject (being the person to whom the personal data relates). The European Court of Justice has ruled that the U.S.-E.U. Safe Harbor framework, one compliance method by which companies could transfer personal data regarding citizens of the European Union to the United States, could no longer be relied upon. The potential impact of this ruling is subject to further determination and additional developments, including the recently released legal texts that will form the basis of the EU-US Privacy Shield Framework, a new form of Safe Harbor framework. These changes may require us to find alternative bases for the compliant transfer of personal data from the E.U. to the U.S.

We are subject to the supervision of local data protection authorities in those jurisdictions where we are established or otherwise subject to applicable law. We depend on a number of third parties in relation to our provision of our services, a number of which process personal data on our behalf. With each such provider we enter into contractual arrangements to ensure that they only process personal data according to our instructions, and that they have sufficient technical and organizational security measures in place. Where we transfer personal data outside the EEA, we do so in compliance with the relevant data export requirements. We take our data protection obligations seriously, as any improper disclosure, particularly with regard to our customers' sensitive personal data, could negatively impact our business and/or our reputation.

There are costs and administrative burdens associated with ongoing compliance with HIPAA and similar state, federal and foreign law requirements. Any failure or perceived failure to comply carries with it the risk of significant penalties and sanctions. These laws at a state, federal or foreign level, or new interpretations of these laws, could create liability for us, could impose additional operational requirements on our business, could affect the manner in which we use and transmit patient information and could increase our cost of doing business. Claims of violations of privacy rights or contractual breaches, even if we are not found liable, could be expensive and time-consuming to defend and could result in adverse publicity that could harm our business.

Coverage and reimbursement

Significant uncertainty exists as to the coverage and reimbursement status of any pharmaceutical, biological or medical device product. In the United States and markets in other countries, patients who are prescribed treatments or undergo procedures for their conditions and the providers performing the services generally rely on third-party payors to reimburse all or part of the associated healthcare costs. Patients are unlikely to use our products unless coverage is provided and reimbursement is adequate to cover a significant portion of the cost of our products or related procedures. Sales of any products will therefore depend, in part, on the availability of coverage and adequate reimbursement from third-party payors. Third-party payors include government authorities, managed care providers, private health insurers and other organizations.

The process for determining whether a third-party payor will provide coverage for a product typically is separate from the process for setting the price of such product or for establishing the reimbursement rate that the payor will pay for the product once coverage is approved. Third-party payors may limit coverage to specific products on an approved list, also known as a formulary, which might not include all of the FDA-approved products for a particular indication, or place products at certain formulary levels that result in lower reimbursement levels and higher cost-sharing obligation imposed on patients. A decision by a third-party payor not to cover any of our product candidates could reduce physician utilization of our products once approved and have a material adverse effect on our sales, results of operations and financial condition. Moreover, a third-party payor's decision to provide coverage for a product does not imply that an adequate reimbursement rate will be approved. Adequate third-party reimbursement may not be available to enable us to maintain price levels sufficient to realize an appropriate return on our investment in product development. Additionally, coverage and reimbursement for products can differ significantly from payor to payor. One third-party payor's decision to cover a particular medical product or service does not ensure that other payors will also provide coverage for the medical product or service, or will provide coverage at an adequate reimbursement rate. As a result, the coverage determination process will often require us to provide scientific and clinical support for the use of our products to each payor separately and can be a time-consuming process.

Third-party payors are increasingly challenging the price and examining the medical necessity and cost-effectiveness of medical products and services, in addition to their safety and efficacy. In order to obtain and maintain coverage and reimbursement for any product, we may need to conduct expensive clinical trials in order to demonstrate the medical necessity and cost-effectiveness of such product, in addition to the costs required to obtain regulatory approvals. Our products may not be considered medically necessary or cost-effective. If third-party payors do not consider a product to be cost-effective compared to other available therapies, they may not cover the product as a benefit under their plans or, if they do, the level of payment may not be sufficient to allow a company to sell its products at a profit. Any changes in coverage and reimbursement that further restricts coverage of our products or lowers reimbursement for procedures using our devices could materially affect our business.

Outside of the United States, the pricing of medical devices and prescription pharmaceuticals is subject to governmental control in many countries. For example, in the EU, pricing and reimbursement schemes vary widely from country to country. Some countries provide that products may be marketed only after a reimbursement price has been agreed. Some countries may require the completion of additional studies that compare the cost-effectiveness of a particular therapy to currently available therapies or so called health technology assessments, in order to obtain reimbursement or pricing approval. Other countries may allow companies to fix their own prices for products, but monitor and control prescription volumes and issue guidance to physicians to limit prescriptions. Efforts to control prices and utilization of medical devices and pharmaceutical products could continue as countries attempt to manage healthcare expenditures, especially in light of the severe fiscal and debt crises experienced by many countries in the EU. There can be no assurance

that any country that has price controls or reimbursement limitations for medical devices or pharmaceutical products will allow favorable reimbursement and pricing arrangements for any of our products, if approved in those countries.

Exogen reimbursement and order fulfillment

Our Exogen system is classified as durable medical equipment, meaning the product is used by the patient in the home and that the patient and/or insurance company, rather than the physician, is billed for the product. We bill third-party payors, such as private insurance or Medicare, on behalf of our patients and bill the patient for their co-payment obligations and deductibles. We bill and process orders for our Exogen system through a team of approximately 40 employees trained in verifying case-by-case benefits, obtaining prior authorization, and billing and collecting payments from payors. We also have a separate dedicated team of employees that provides customer support services for our Exogen system.

We have strong and established payor relationships, including the largest private payors in the United States. Based on our estimates, we are contracted or enrolled as an in-network provider with payors covering over 100 million lives. These contracts allow us to be an in-network provider for patients, enabling them to access our Exogen system at a competitive rate and copay comparable to other suppliers, and easing our administrative burden in processing at both authorization and when billing. Our Exogen system is reimbursed under HCPCS code E0760.

Healthcare reform

A primary trend in the U.S. healthcare industry and elsewhere is cost containment. Government authorities and other third-party payors have attempted to control costs by limiting coverage and the amount of reimbursement for particular medical products and services. In recent years, Congress has enacted a number of laws that affect Medicare reimbursement for and coverage of durable medical equipment and durable medical equipment, prosthetics, orthotics and supplies, such as our Exogen system. These laws have included temporary freezes or reductions in Medicare fee schedule updates.

For example, the Affordable Care Act substantially changed healthcare financing and delivery by both governmental and private insurers, and significantly impacted the pharmaceutical and medical device industries. The Affordable Care Act, among other things, subjects biologic products to potential competition by lower-cost biosimilars; addresses a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for drugs that are inhaled, infused, instilled, implanted or injected; increases the minimum Medicaid rebates owed by manufacturers under the Medicaid Drug Rebate Program and extends the rebate program to individuals enrolled in Medicaid managed care organizations; establishes a new Medicare Part D coverage gap discount program, in which manufacturers must agree to offer 50% point-of-sale discounts off negotiated prices of applicable brand drugs to eligible beneficiaries during their coverage gap period, as a condition for the manufacturer's outpatient drugs coverage under Medicare Part D; subjects drug manufacturers to new annual fees based on pharmaceutical companies' share of sales to federal healthcare programs; imposes a new federal excise tax on the sale of certain medical devices; created a new Patient Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative effectiveness research, along with funding for such research; implements payment system reforms including a national pilot program on payment bundling to encourage hospitals, physicians and other providers to improve the coordination, quality and efficiency of certain healthcare services through bundled payment models; and creates an independent payment advisory board that will submit recommendations to reduce Medicare spending if projected Medicare spending exceeds a specified growth rate.

In addition, other legislative changes have been proposed and adopted in the United States since the Affordable Care Act was enacted. On August 2, 2011, the Budget Control Act of 2011 was signed into law, which, among other things, created the Joint Select Committee on Deficit Reduction to recommend to Congress proposals in spending reductions. The Joint Select Committee did not achieve a targeted deficit reduction of at least \$1.2 trillion for the years 2013 through 2021, triggering the legislation's automatic reduction to several government programs. This includes aggregate reductions to Medicare payments to providers of up to 2% per fiscal year, which went into effect on April 1, 2013 and, due to the Bipartisan Budget Act of 2015, will stay in effect through 2025 unless additional Congressional action is taken. On January 2, 2013, the American Taxpayer Relief Act of 2012, was signed into law, which, among other things, further reduced Medicare payments to several providers, including hospitals, imaging centers and cancer treatment centers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. President Obama signed the Medicare Access and CHIP Reauthorization Act of 2015, or MACRA, on April 16, 2015, which repealed and replaced the Sustainable Growth Rate, or SGR, formula for Medicare payment adjustments to physicians. MACRA provides a solution to the annual interim legislative updates that had previously been necessary to delay or prevent significant reductions to payments under the Physician Fee Schedule. MACRA extended existing payment rates under Protecting Access to Medicare Act of 2014, or PAMA, through June 30, 2015, with a 0.5% update for July 1, 2015, through December 31, 2015 and for each calendar year through 2019, after which there will be a 0% annual update each year through 2025. MACRA also requires CMS, beginning in 2019, to provide incentive payments for physicians and other eligible professionals that participate in alternative payment models, such as accountable care organizations, that emphasize quality and value over the traditional volume-based fee-for-service model. MACRA is still new and the manner in which it will be implemented is not certain.

We expect that additional foreign, state and federal healthcare reform measures will be adopted in the future, any of which could limit the amounts that federal and state governments will pay for healthcare products and services, which could result in reduced demand for our products or additional pricing pressure.

Employees

As of December 31, 2015, we had approximately 650 employees, none of which were covered by collective bargaining agreements. Most of these employees are located in the United States with approximately 130 located outside the United States. We believe that our relations with our employees are generally good.

Facilities

Our principal executive offices occupy approximately 45,853 square feet of leased office space located in Durham, North Carolina. We also occupy approximately 39,800 square feet of leased office and manufacturing space in Cordova, Tennessee. As a result of our acquisition of BioStructures, we also occupy leased space in Newport Beach, California. In addition, our international operations are located in Hoofddorp, Netherlands where we occupy approximately 7,190 square feet of leased office space. We also occupy leased R&D facilities in Boston, Massachusetts. We believe that our facilities are sufficient to meet our current needs and that suitable additional space will be available as and when needed on acceptable terms.

Legal proceedings

We are not currently a party to any material legal proceedings. We may at times be involved in litigation and other legal claims in the ordinary course of business. When appropriate in our estimation, we may record reserves in our financial statements for pending litigation and other claims.

Management

Executive officers, key employees and directors

The following table sets forth information regarding the individuals who have agreed to become our executive officers, key employees and directors upon the completion of this offering, as of April 19, 2016:

Name	Age	Position(s)
Executive Officers and Directors		
Anthony P. Bihl III	59	Chief Executive Officer and Director
David J. Price	53	Senior Vice President and Chief Financial Officer
Gregory O. Anglum	45	Chief Accounting Officer
Jeanne M. Forneris	62	Senior Vice President, Strategy and General Counsel
Henry C. Tung, M.D.	57	Senior Vice President, Bioventus and President, Bioventus Surgical

The following are biographical summaries and a description of the business experience of those individuals who serve as officers of Bioventus LLC. Upon the consummation of this offering, such individuals will serve in the same capacities at Bioventus Inc. The following also contains biographical summaries and a description of the business experience of those individuals who will serve as directors of Bioventus Inc.

Executive officers and directors

Anthony P. Bihl III has served as Chief Executive Officer, and as a manager of Bioventus LLC, since December 2013. From June 2011 through June 2012, Mr. Bihl was Group President of American Medical Systems Holdings, a subsidiary of Endo Pharmaceuticals. From April 2008 until Endo Pharmaceuticals acquired American Medical Systems Holdings in June 2011, he was Chief Executive Officer and a director of American Medical Systems Holdings, a company engaged in developing and delivering medical technology solutions to physicians treating men's and women's pelvic health conditions. From January 2007 to November 2007, Mr. Bihl served as Chief Executive Officer of Siemens Medical Solutions' Diagnostics Division. From 2004 through 2006, he served as President of the Diagnostics Division of Bayer HealthCare. Prior to that, he served in a number of operations and finance roles at Bayer Healthcare and E.I. DuPont. Mr. Bihl also is chairman of the board of directors of Spectral Diagnostics, Inc., a company that develops products for the diagnosis and treatment of severe sepsis and septic shock, and a director of Nuvectra Inc. Mr. Bihl received his B.S. in Business Administration from Pennsylvania State University.

We believe Mr. Bihl's experience in the industry, his role as our Chief Executive Officer and his knowledge of the Company enable him to make valuable contributions to our board of directors.

David J. Price has served as the Vice President and Chief Financial Officer at Bioventus LLC since October 2012 and was made Senior Vice President and Chief Financial Officer in February 2016. From July 2010 to August 2012 and May 2011 to August 2012, Mr. Price served as the Chief Financial Officer and Chief Operating Officer of EDGAR Online Inc., respectively. From September 2008 to July 2010, Mr. Price served various roles at Cornerstone Therapeutics Inc., including Chief Financial Officer and Executive Vice President of Finance. Prior to that, he served as a Managing Director in the healthcare sector at both Jefferies and Bear Stearns. Mr. Price is a member of the Institute of Chartered Accountants in England and Wales. Mr. Price holds a Bachelor's of Science Honours Degree in Accounting and Financial Management from Lancaster University (United Kingdom).

Gregory O. Anglum has served as our Chief Accounting Officer at Bioventus LLC since April 2016. From September 2014 to April 2016, Mr. Anglum was Chief Financial Officer of Overture Networks, Inc., a leading global provider of network functions virtualization, software-defined networking and carrier ethernet

solutions for communications networks. From December 2013 to August 2014, he was Chief Financial Officer at Strikelron, Inc., a Data-as-a-Service software company. From August 2004 to July 2013, Mr. Anglum was an audit partner at Grant Thornton LLP where he also served as leader for the Raleigh local office from August 2009 through July 2013 and was on the firm-wide leadership team for the technology industry group. Mr. Anglum helped open the Grant Thornton office in Raleigh in July 2002 as a senior manager when he joined that firm after starting his career as a staff auditor at Arthur Andersen LLP in July 1993 and progressing to the role of manager. He is a Certified Public Accountant. Mr. Anglum holds an Masters of Business Administration with a concentration in Accounting from Vanderbilt University's Owen Graduate School of Management and a Bachelors of Arts in Economics from Vanderbilt University.

Jeanne M. Forneris has served as Vice President, Strategy and General Counsel at Bioventus LLC since May 2012 and was made Senior Vice President, Strategy and General Counsel in February 2016. From February 2010 to November 2011, Ms. Forneris served as Senior Vice President and General Counsel at American Medical Systems Holdings Inc. From January 2007 to February 2010, she served as Vice President of Strategic Investments for the Cardiac Rhythm Disease Management Division of Medtronic. From July 2000 to December 2006, Ms. Forneris served as Vice President and Senior Counsel for the Cardiac Rhythm Disease Management Division of Medtronic. Ms. Forneris holds a Bachelor of Arts in Political Science and History from Macalester College and a Juris Doctorate from the University of Minnesota.

Henry C. Tung, M.D. has served as Vice President, Bioventus and General Manager, Bioventus Surgical at Bioventus LLC since October 2014 and was made Senior Vice President, Bioventus and President, Bioventus Surgical in February 2016. Dr. Tung previously served as Vice President and Managing Director of the International Headquarters of Bioventus. From 2009 to May 2012, he led strategic planning and business development for the Biologics Division of S&N. From February 2005 to 2008, he served as Corporate Vice President Global Surgical and President of North America Surgical for Bausch & Lomb, where he managed its medical device business. From 2000 to February 2005, he served as Vice President, New Business Development at Boston Scientific Corporation. Dr. Tung received his Master of Business Administration from Northwestern University's Kellogg Graduate School of Management, his medical degree from the University of California School of Medicine, and his bachelor's degree from Stanford University.

Corporate governance

Composition of our board of directors

Upon the consummation of this offering, the number of directors will be increased to nine. Further, our amended and restated certificate of incorporation and bylaws will provide for the division of our board of directors into three classes, as nearly equal in number as possible, with the directors in each class serving for a three-year term, and one class being elected each year by our stockholders. Prior to the consummation of this offering, David J. Price will resign as a director and each of _____, _____, _____, _____, and _____, will join our board of directors.

When considering whether directors and nominees have the experience, qualifications, attributes or skills, taken as a whole, to enable our board of directors to satisfy its oversight responsibilities effectively in light of our business and structure, the board of directors focuses primarily on each person's background and experience as reflected in the information discussed in each of the directors' individual biographies set forth above. We believe that our directors provide an appropriate mix of experience and skills relevant to the size and nature of our business.

Director independence

Prior to the consummation of this offering, our board of directors undertook a review of the independence of our directors and considered whether any director has a material relationship with us that could compromise

that director's ability to exercise independent judgment in carrying out that director's responsibilities. Our board of directors has determined that, except as described below with respect to _____, all of the members of each of the board's three standing committees are independent as defined under the rules of _____, including, in the case of all members of the audit committee, the independence requirements contemplated by Rule 10A-3 under the Exchange Act.

Board committees

Our board has established three standing committees—audit, compensation, and nominating and corporate governance—each of which operates under a charter that has been approved by our board of directors. Current copies of each committee's charter are posted on our website, www.bioventusglobal.com. The information on any of our websites is deemed not to be incorporated in this prospectus or to be part of this prospectus.

Following this offering, the Voting Group, which will hold Class A common stock and Class B common stock collectively representing a majority of the combined voting power of our total common stock outstanding, intends to enter into the Stockholders Agreement to elect the nominees of certain members of the Voting Group to our board of directors. See "Description of capital stock—Stockholders Agreement." As a result, we will be a "controlled company" under The NASDAQ Global Market governance standards. As a controlled company, exemptions under the standards will mean that we are not required to comply with certain corporate governance requirements, including the following requirements:

- that a majority of our board of directors consists of "independent directors," as defined under the NASDAQ rules;
- that we have a nominating and corporate governance committee that is composed entirely of independent directors with a written charter addressing the committee's purpose and responsibilities;
- that we have a compensation committee that is composed entirely of independent directors with a written charter addressing the committee's purpose and responsibilities; and
- for an annual performance evaluation of the nominating and governance committee and compensation committee.

These exemptions do not modify the independence requirements for our audit committee, and we intend to comply with the applicable requirements of the Sarbanes-Oxley Act and rules with respect to our audit committee within the applicable time frame.

Audit committee

The audit committee will be responsible for, among other matters:

- appointing, compensating, retaining, evaluating, terminating and overseeing our independent registered public accounting firm;
- discussing with our independent registered public accounting firm their independence from management;
- reviewing with our independent registered public accounting firm the scope and results of their audit;
- approving all audit and permissible non-audit services to be performed by our independent registered public accounting firm;
- overseeing the financial reporting process and discussing with management and our independent registered public accounting firm the interim and annual financial statements that we file with the SEC;

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- reviewing and monitoring our accounting principles, accounting policies, financial and accounting controls and compliance with legal and regulatory requirements; and
- establishing procedures for the confidential anonymous submission of concerns regarding questionable accounting, internal controls or auditing matters.

Upon the closing of this offering, our audit committee will consist of _____, _____ and _____ with _____ serving as chair. Rule 10A-3 of the Exchange Act and _____ rules require us to have one independent audit committee member upon the listing of our common stock, a majority of independent directors on our audit committee within 90 days of the date of this prospectus and an audit committee composed entirely of independent directors within one year of the date of this prospectus. Our board of directors has affirmatively determined that _____ and _____ meet the definition of “independent director” for purposes of serving on an audit committee under Rule 10A-3 and NASDAQ rules, and we intend to comply with the other independence requirements within the time periods specified. In addition, our board of directors has determined that _____ will qualify as an “audit committee financial expert,” as such term is defined in Item 407(d)(5) of Regulation S-K.

Compensation committee

The compensation committee's responsibilities include:

- reviewing and approving the compensation of our directors, Chief Executive Officer and other executive officers; and
- appointing and overseeing any compensation consultants.

Upon the closing of this offering, our compensation committee will consist of _____, _____ and _____ with _____ serving as chair. As a controlled company, we will rely upon the exemption from the requirement that we have a compensation committee composed entirely of independent directors.

Nominating and corporate governance committee

The nominating and corporate governance committee's responsibilities include:

- identifying individuals qualified to become members of our board of directors, consistent with criteria approved by our board of directors; and
- developing and recommending to our board of directors a set of corporate governance guidelines and principles.

The members of our nominating and corporate governance committee are _____, _____ and _____ with _____ serving as chair. As a controlled company, we will rely upon the exemption from the requirement that we have a nominating and corporate governance committee composed entirely of independent directors.

Risk oversight

Our board of directors is responsible for overseeing our risk management process. Our board of directors focuses on our general risk management strategy, the most significant risks facing us, and oversees the implementation of risk mitigation strategies by management. Our board of directors is also apprised of particular risk management matters in connection with its general oversight and approval of corporate matters and significant transactions.

Risk considerations in our compensation program

We conducted an assessment of our compensation policies and practices for our employees and concluded that these policies and practices are not reasonably likely to have a material adverse effect on us.

Director compensation

None of our directors received compensation as a director during fiscal 2015. We intend to approve and implement a compensation policy that, effective upon the closing of this offering, will be applicable to all of our non-employee directors.

Compensation committee interlocks and insider participation

During fiscal 2015, the members of Bioventus LLC's compensation committee were _____, _____ and _____. No member of our compensation committee is or has been a current or former officer or employee of Bioventus or had any related person transaction involving Bioventus. None of our executive officers served as a director or a member of a compensation committee (or other committee serving an equivalent function) of any other entity, one of whose executive officers served as a director or member of Bioventus LLC's compensation committee during fiscal 2015.

Code of ethics and code of conduct

We have adopted a written code of business conduct and ethics that applies to our directors, officers and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. We have posted a current copy of the code on our website, www.bioventusglobal.com. In addition, we intend to post on our website all disclosures that are required by law or _____ listing standards concerning any amendments to, or waivers from, any provision of the code.

Executive compensation

This section discusses the material components of the executive compensation program for our executive officers who are named in the “2015 Summary compensation table” below. In 2015, our “named executive officers” and their positions were as follows:

- Anthony P. Bihl III, Chief Executive Officer;
- David J. Price, Chief Financial Officer; and
- Henry C. Tung, M.D., Vice President, Bioventus and General Manager, Bioventus Surgical.

This discussion may contain forward-looking statements that are based on our current plans, considerations, expectations and determinations regarding future compensation programs. Actual compensation programs that we adopt following the completion of this offering may differ materially from the currently planned programs summarized in this discussion.

2015 Summary compensation table

The following table sets forth information concerning the compensation of our named executive officers for the year ended December 31, 2015.

Name and principal position	Year	Salary (\$)(1)	Equity awards (\$)(2)	Non-equity incentive plan compensation (\$)(3)	All Other Compensation (\$)(4)	Total (\$)
Anthony P. Bihl III <i>Chief Executive Officer</i>	2015	602,308	—	670,200	19,875	1,292,383
David J. Price <i>Chief Financial Officer</i>	2015	356,760	65,400	198,460	22,055	642,675
Henry C. Tung, M.D. <i>General Manager, Bioventus Surgical</i>	2015	361,278	65,400	287,345	21,459	735,482

- (1) Amounts reflect annual base salary paid during 2015, including an additional pay period during the fiscal year. Amounts for each of Mr. Price and Dr. Tung reflect annual merit increases to base salaries, effective as of March 30, 2015.
- (2) Amounts reflect the grant date fair value of the phantom profits interest unit awards granted to Mr. Price and Dr. Tung during 2015 computed in accordance with Financial Accounting Standards Board Accounting Standards Codification Topic 718, Compensation—Stock Compensation, or FASB ASC Topic 718, rather than the amounts paid to or realized by the named executive officers. We provide information regarding the assumptions used to determine the value of all phantom profits interest unit awards made to named executive officers in the section entitled “Management’s discussion and analysis of financial condition and results of operations—Critical accounting policies and estimates—Equity compensation” above.
- (3) The annual performance-based cash incentives earned by our named executive officers in 2015 were determined in accordance with the achievement of corporate and personal performance objectives as set forth in the 2015 Executive Annual Incentive Plan—Non-Commercial and the 2015 Executive/Director Annual Incentive Plan—Bioventus Surgical, as applicable. For a discussion of the determination of these amounts, please review the section entitled “—Narrative disclosure to summary compensation table—2015 Bonus incentives” below.
- (4) Amounts reflect (a) a \$7,950 matching 401(k) contribution made by Bioventus LLC to each of the named executive officer’s 401(k) accounts in 2015, (b) an additional fixed non-elective contribution of \$11,925 made by Bioventus LLC to the 401(k) accounts of each of Messrs. Bihl and Price and Dr. Tung and (c) reimbursement of cellular telephone expenses to each of Mr. Price and Dr. Tung equal to \$2,180 and \$1,584, respectively.

Narrative to summary compensation table

Employment agreements

Bioventus LLC offered employment to each of Messrs. Bihl and Price and Dr. Tung pursuant to employment letters dated November 4, 2013, September 27, 2012 and April 20, 2012, respectively. Pursuant to their respective employment letters, Mr. Bihl was hired to serve as the Chief Executive Officer, Mr. Price was hired to serve as the Chief Financial Officer and Dr. Tung was hired to serve as the Vice President – Strategic Planning & Business Development and was later promoted to Vice President & General Manager, Surgical in October 2014. Mr. Bihl also serves as a member of the Bioventus LLC board of managers. In connection with this offering, we intend to enter into new employment agreements with each of our named executive officers.

2015 Salaries

The named executive officers receive a base salary to compensate them for services rendered to Bioventus LLC. The base salary payable to each named executive officer is intended to provide a fixed component of compensation reflecting the named executive officer's skill set, experience, role and responsibilities.

Pursuant to the terms of their respective employment letters, the annual base salary payable to each of Messrs. Bihl and Price and Dr. Tung was \$600,000, \$325,000 and \$309,001, respectively. Since their date of hire, each of Mr. Price and Dr. Tung has received annual merit increases to base salary based on performance. On March 30, 2015, each of Mr. Price and Dr. Tung received an additional merit increase to place their salary at \$358,670 and \$362,401, respectively. As of December 31, 2015, Mr. Bihl's annual base salary remained unchanged.

2015 Bonus incentives

In 2015, each of our named executive officers was eligible to earn an annual performance-based cash bonus from the Company pursuant to either the 2015 Executive Annual Incentive Plan—Non-Commercial (the Non-Commercial AIP) or the 2015 Executive/Director Annual Incentive Plan – Bioventus Surgical (the Surgical AIP). Bonuses earned by our named executive officers under each of these incentive plans in 2015 were based upon threshold, target and maximum achievement of the following objective business measures: sales, Adjusted EBITDA, certain non-financial objectives (portfolio development including business development and progress of the development of the BMP product candidates) and Exogen growth) for the Non-Commercial AIP and business development and market access for the Surgical AIP, as well as the threshold, target and maximum achievement of personal performance standards based on whether the named executive officer inconsistently met, consistently met or consistently exceeded obligations and the method of achieving such obligations. Upon achievement of the target Non-Commercial AIP and personal performance objectives, each of Messrs. Bihl and Price was eligible, pursuant to his respective offer letter, to receive a target incentive under the Non-Commercial AIP in the amount of 100% and 50% of his respective annual base salary and Dr. Tung was eligible to receive a target incentive under the Surgical AIP in the amount of 50% of his annual base salary. Payouts for the objective business measures under the Non-Commercial AIP and the Surgical AIP were subject to reduction to 50%, or increased to 200%, of the applicable objective business measure target for achievement of minimum or maximum performance results, respectively.

Of the targeted objective business measures for the Non-Commercial AIP, we achieved 104% of sales, 82% of Adjusted EBITDA, 200% of business development, 100% of the targeted development of the BMP product candidates and 0% of Exogen growth. In addition to our business performance each of Messrs. Bihl and Price achieved 200% of their targeted individual performance, resulting in overall payments of 111.7% of his respective target incentive. Of the targeted objective business measures for the Surgical AIP, we achieved 181%

of sales, 82% of Adjusted EBITDA, 200% of business development and 100% of increased market access. In addition to our business performance, Dr. Tung achieved 200% of his targeted individual performance, resulting in an overall payment to Dr. Tung of 159.7% of his target incentive. The actual amount of the performance-based cash incentives earned by each named executive officer, to be paid in 2016, with respect to 2015 performance is set forth above in the Summary Compensation Table in the column entitled “Non-equity incentive plan compensation.”

Equity-based compensation

Each of our named executive officers hold equity-based compensation in Bioventus LLC as set forth below. The grant date fair value of the equity-based awards granted to the named executives officers in 2015 is set forth above in the Summary Compensation Table in the column entitled “Equity Awards” and the critical accounting policies and estimates with respect to these equity-based awards are described above in the section entitled “Management’s discussion and analysis of financial condition and results of operations — Critical accounting policies and estimates — Equity compensation.”

Profits interest units

Bioventus LLC currently maintains a profits interest plan, which we call the Bioventus LLC Management Incentive Plan, or the “MIP”. Profits interest units awarded under the MIP generally vest twenty-five percent (25%) on the first anniversary of the date of grant, and then continue to vest 6.25% on each quarter thereafter.

On December 2, 2013, Mr. Bihl was granted 333,330 profits interest units pursuant to the terms of the MIP and an individual profits interest award agreement thereunder. Neither Mr. Price nor Dr. Tung hold any profits interest units. In connection with the offering, each profits interest unit awarded under the MIP will be exchanged for LLC Interests which may then be exchanged for shares of Class A common stock (upon redemption or cancellation of the same number of their shares of our Class B common stock) or a cash payment (if mutually agreed).

Phantom profits interest units

Bioventus LLC currently maintains a phantom equity plan, which we call the “Phantom Profits Interest Plan” or “Phantom Plan.” Participants in the Phantom Plan are eligible to receive cash payments upon separation from service or a change of control in an amount determined with reference to the value of our profits interests.

In connection with their hire, Mr. Price and Dr. Tung were granted 111,110 and 55,555 phantom profits interest units, respectively, under the Phantom Plan. The applicable award agreements for each of Mr. Price and Dr. Tung provide for vesting of twenty percent (20%) of the phantom profits interest units subject to the award on the first anniversary of the date of grant, with the remainder vesting five percent (5%) on each quarter thereafter.

In addition, on June 1, 2015, each of Mr. Price and Dr. Tung were granted 20,000 phantom profits interest units under the Phantom Plan, with each award scheduled to cliff vest 50% after three years if the 2017 enterprise valuation exceeds \$690 million and cliff vest 100% after three years if the 2017 enterprise valuation exceeds \$740 million.

In connection with this offering, we intend to terminate the Phantom Plan and settle all awards thereunder 12 months following termination. We expect that, in connection with the Phantom Plan termination, Bioventus Inc. will assume obligations of Bioventus LLC and that Phantom Plan awards will be paid in the form of shares of Class A common stock. The number of shares of Class A common stock received by each participant, including our named executive officers, will be determined by dividing the participant’s account balance as of the date of

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plan termination by the initial public offering price of Class A common stock. To the extent that a Phantom Plan award is not otherwise vested as of the date the Phantom Plan is terminated, payment will be subject to the participant's continued employment with us through the applicable vesting date or the twelve month anniversary of plan termination, if earlier. On and following the date of this offering, no further awards will be made under the Phantom Plan.

New equity-based compensation

In connection with the offering, we intend to adopt a 2016 Incentive Award Plan in order to facilitate the grant of cash and equity incentives to directors, employees (including our named executive officers) and consultants of our Company and certain of its affiliates and to enable our Company and certain of its affiliates to obtain and retain services of these individuals, which is essential to our long-term success. We expect that the 2016 Incentive Award Plan will be effective on the date on which it is adopted by our board of directors, subject to approval of such plan by our stockholders. For additional information about the 2016 Incentive Award Plan, please see the section titled "New incentive plans" below.

Severance

The employment letters for each of Mr. Bihl and Dr. Tung provide for severance payments upon termination of employment without cause (other than as a result of death or disability) or a termination for good reason (as defined below) during the two year period following the date of a change in control (as defined in the respective employment agreement). The employment letter for Mr. Price provides for severance payments upon termination of employment without cause (other than as a result of death or disability) or a termination for good reason (as defined below) at any time prior to a change in control (as defined in the employment agreement) or during the two year period following the date of a change in control. In the event of a termination without cause or for good reason, as described above, each of Mr. Price and Dr. Tung are entitled to receive (i) twelve months base salary, payable over a twelve-month period, (ii) 100% of their respective target annual cash incentive, paid on or about 60 days following termination of employment and (iii) payment of COBRA premiums for the first twelve months of coverage following termination of employment. In the event of a termination without cause or for good reason, as described above, Mr. Bihl is entitled to receive the same severance payments as those outlined above for Mr. Price and Dr. Tung, with the exception that (i) Mr. Bihl is entitled to a lump sum payment of twelve months base salary on or about 60 days following termination and (ii) if he terminates employment for good reason during the two-year period following a change in control (as defined in the employment agreement), Mr. Bihl is entitled to enhanced severance equal to twenty-four months of base salary and his target annual cash incentive, payable in a lump sum on or about 60 days following termination of employment. The severance payments for Messrs. Bihl and Price and Dr. Tung are conditioned upon execution and delivery of a release and compliance with confidentiality and restrictive covenant obligations as set forth in a separate proprietary information agreement.

For purposes of the employment letters, "cause" is defined generally as the occurrence of any one of the following events by a named executive officer, and with respect to Messrs. Bihl and Price, without full cure of such event by such named executive officer within 30 days of written notice provided by the board of managers of Bioventus LLC: (a) conviction (including a guilty plea or plea of nolo contendere) of any felony or any other crime involving fraud or violence (or with respect to Mr. Bihl or Dr. Tung, dishonesty), (b) commission of or participation in a fraud or act of dishonesty or misrepresentation against Bioventus LLC, (c) violation of any written and fully executed contract or agreement between the named executive officer and Bioventus LLC, including without limitation, breach of the restrictive covenants agreement, (d) gross negligence or willful misconduct, (e) continued and substantial failure to perform applicable duties or (f) violation of any material policies, practices or procedures of Bioventus LLC; and "good reason" is defined generally as the occurrence of

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any one of the following events without either express prior written consent or full cure within 30 days of written notice provided to Bioventus LLC: (i) a material diminution of duties or responsibilities, (ii) a material reduction in salary, other than for across-the-board reductions similarly affecting all senior executive officers, (iii) the relocation of principal office, or principal place of employment, to a location more than 50 miles from the location of the principal office or place of business as of the effective date of the employment letter, or (iv) a failure to pay earned compensation.

Restrictive covenants

Our named executive officers are subject to certain post-employment restrictive covenants, including twelve-month non-competition and non-solicitation obligations, as set forth in proprietary information agreements entered into with each named executive officer. Further, the employment letters for each of our named executive officers provide for mutual non-disparagement obligations.

Retirement plans

Bioventus LLC currently maintains a 401(k) retirement savings plan, or the 401(k) plan, in which all Bioventus LLC employees, including our named executive officers, who satisfy certain eligibility requirements may participate. The Internal Revenue Code allows eligible employees to defer a portion of their compensation, within prescribed limits, on a pre-tax basis through contributions to the 401(k) plan. Under the terms of the 401(k) plan, we currently make (a) non-discretionary matching contributions equal to 50% of the employee's contributions, up to a maximum of 6% of the employee's eligible compensation and (b) a non-elective contribution equal to 4.5% of the employee's compensation for the plan year, subject to continued employment through the end of the plan year. Further, our board of managers has discretion under the 401(k) plan to provide for (i) annual discretionary matching contributions based on eligible compensation contributed by each employee and (ii) discretionary nonelective contributions in an amount determined by the board at year end, subject to continued employment through year end. We believe that providing a vehicle for tax-deferred retirement savings through the 401(k) plan adds to the overall desirability of our executive compensation package and further incentivizes our employees, including our named executive officers, in accordance with our compensation policies. Following the consummation of this offering, we anticipate that our employees will continue to be eligible to participate in a 401(k) plan maintained by us.

Employee benefits

Health and Welfare Plans. All of our full-time employees, including our named executive officers, are eligible to participate in health and welfare plans maintained by Bioventus LLC, including:

- medical, dental and vision benefits;
- medical and dependent care flexible spending accounts; and
- short-term and long-term disability insurance.

Our named executive officers participate in these plans on the same basis as other eligible employees. We do not maintain any supplemental health and welfare plans for our named executive officers. We reimburse our named executive officers for the full cost of their personal cellular phones. We believe the benefits described above are necessary and appropriate to provide a competitive compensation package to our named executive officers.

No tax gross-ups

We do not make gross-up payments to cover our named executive officers' personal income taxes that may pertain to any of the compensation or perquisites paid or provided by our Company.

Outstanding equity awards at fiscal year-end

The following table summarizes the number of profits interests units and phantom profits interest units underlying outstanding equity incentive plan awards for our named executive officers as of December 31, 2015.

Name	Profits interest units		Phantom profits interests		
	Number of profits interest units that have not vested (#)	Market value of profits interest units that have not vested (\$)(4)	Number of profits interest units underlying phantom profits interests (#) vested	Number of profits interest units underlying phantom profits interests (#) unvested	Number of profits interest units underlying unearned phantom profits interests unvested (#)
Anthony P. Bihl III	166,666(1)	2,216,651	—	—	—
David J. Price	—	—	66,666(2)	44,444(2)	—
	—	—	0	—	20,000(2)
Henry C. Tung, M.D.	—	—	38,889(3)	16,667(3)	—
	—	—	0	—	20,000(3)

- (1) Mr. Bihl was granted 333,330 profits interest units on December 2, 2013. As of December 31, 2015, 166,665 of Mr. Bihl's profits interest units were vested. Twenty-five percent (25%) of the profits interest units granted to Mr. Bihl vested, or will vest, on the first anniversary of the grant date and 6.25% of the profits interest units granted to Mr. Bihl vested, or will vest, on a quarterly basis thereafter.
- (2) Mr. Price was granted 111,110 phantom profits interest units on October 22, 2012 and 20,000 phantom profits interest units on June 1, 2015. As of December 31, 2015, 66,666 of Mr. Price's phantom profits interest units were vested. The October 22, 2012 grant vests twenty percent (20%) on the first anniversary of the grant date and five percent (5%) on a quarterly basis thereafter. The June 1, 2015 grant cliff vests as described above in "Narrative to summary compensation table—Equity-based compensation—Phantom profits interests units."
- (3) Dr. Tung was granted 55,555 phantom profits interest units on May 4, 2012 and 20,000 phantom profits interest units on June 1, 2015. As of December 31, 2015, 38,889 of Dr. Tung's phantom profits interest units were vested. The May 4, 2012 grant vests twenty percent (20%) on the first anniversary of the grant date and five percent (5%) on a quarterly basis thereafter, and the June 1, 2015 grant cliff vests as described above in "Narrative to summary compensation table—Equity-based compensation—Phantom profits interests units."
- (4) There is no public market for the profits interest units. We valued the profits interest units based on a board determination of valuation with reference to a third party valuation for purposes of this disclosure. The amount reported above under the heading "Market value of profits interest units that have not vested" reflects the intrinsic value of the profits interest units as of December 31, 2015. In connection with the offering, each profits interest unit will be exchanged for LLC Interests.

Director compensation

Members of the Bioventus LLC board of managers have not historically received compensation for their services as board members. In connection with this offering, we intend to approve and implement a compensation policy that, effective upon the closing of this offering, will be applicable to all of our non-employee directors.

In connection with our December 11, 2015 offer to Mr. William A. Hawkins to join the Bioventus LLC board of managers as its chairman, we agreed, pursuant to an offer letter, effective January 1, 2016, to (1) pay Mr. Hawkins an annual retainer fee of \$40,000 for his service as a member of the board and \$50,000 for his service as chairman of the board, payable in quarterly installments in arrears and pro-rated for any partial period of service and (2) award Mr. Hawkins 50,000 phantom profits interest units under the Phantom Plan.

New incentive plans

2016 Incentive award plan

In connection with the offering, we intend to adopt the 2016 Incentive Award Plan, or the Plan, subject to approval by our stockholders, under which we may grant cash and equity incentive awards to eligible service providers in order to attract, motivate and retain the talent for which we compete. The material terms of the Plan, as it is currently contemplated, are summarized below. Our board of directors is still in the process of developing, approving and implementing the Plan and, accordingly, this summary is subject to change.

Eligibility and administration. Our employees, consultants and directors, and employees, consultants and directors of our affiliates will be eligible to receive awards under the Plan. Following the offering, the Plan will be administered by our board of directors with respect to awards to non-employee directors and by our

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compensation committee with respect to other participants, each of which may delegate its duties and responsibilities to committees of our directors and/or officers (referred to collectively as the plan administrator below), subject to certain limitations that may be imposed under Section 162(m) of the Code, Section 16 of the Exchange Act, and/or stock exchange rules, as applicable. The plan administrator will have the authority to make all determinations and interpretations under, prescribe all forms for use with, and adopt rules for the administration of, the Plan, subject to its express terms and conditions. The plan administrator will also set the terms and conditions of all awards under the Plan, including any vesting and vesting acceleration conditions.

Limitation on awards and shares available. An aggregate of _____ shares of our common stock will be available for issuance under awards granted pursuant to the Plan, which shares may be authorized but unissued shares, or shares purchased in the open market. If an award under the Plan is forfeited, expires or is settled for cash, any shares subject to such award may, to the extent of such forfeiture, expiration or cash settlement, be used again for new grants under the Plan. However, the following shares may not be used again for grants under the Plan: (1) shares tendered or withheld to satisfy grant or exercise price or tax withholding obligations associated with an option or stock appreciation right, or “SAR”; (2) shares subject to a SAR that are not issued in connection with the stock settlement of the SAR on its exercise; and (3) shares purchased on the open market with the cash proceeds from the exercise of options.

Awards granted under the Plan upon the assumption of, or in substitution for, awards authorized or outstanding under a qualifying equity plan maintained by an entity with which we enter into a merger or similar corporate transaction will not reduce the shares available for grant under the Plan. The maximum number of shares of our Class A common stock that may be subject to one or more awards granted to any person pursuant to the Plan during any calendar year will be _____ and the maximum amount that may be paid in cash under an award pursuant to the Plan to any one participant during any calendar year period will be \$ _____. Further, the maximum aggregate grant date fair value of awards granted to any non-employee director during any calendar year will be \$ _____.

Awards. The Plan provides for the grant of stock options, including incentive stock options, or “ISOs,” and nonqualified stock options, or “NSOs,” restricted stock, dividend equivalents, stock payments, restricted stock units, or “RSUs,” deferred stock, deferred stock units, performance awards and SARs. No determination has been made as to the types or amounts of awards that will be granted to specific individuals pursuant to the Plan. Certain awards under the Plan may constitute or provide for a deferral of compensation, subject to Section 409A of the Code, which may impose additional requirements on the terms and conditions of such awards. All awards under the Plan will be set forth in award agreements, which will detail all terms and conditions of the awards, including any applicable vesting and payment terms and post-termination exercise limitations. Awards generally will be settled in shares of our Class A common stock, but the plan administrator may provide for cash settlement of any award. A brief description of each award type follows.

- **Stock options.** Stock options provide for the right to purchase shares of our Class A common stock in the future at an exercise price set on the grant date. ISOs, by contrast to NSOs, may provide tax deferral beyond exercise and favorable capital gains tax treatment to their holders if certain holding period and other requirements of the Code are satisfied. The exercise price of a stock option may not be less than 100% of the fair market value of the underlying share on the date of grant (or 110% in the case of ISOs granted to certain significant stockholders), except with respect to certain substitute options granted in connection with a corporate transaction. The term of a stock option may not be longer than ten years (or five years in the case of ISOs granted to certain significant stockholders). Vesting conditions determined by the plan administrator may apply to stock options and may include continued service, performance and/or other conditions.
- **SARs.** SARs entitle their holder, upon exercise, to receive from us an amount equal to the appreciation of the shares subject to the award between the grant date and the exercise date. The exercise price of a SAR

may not be less than 100% of the fair market value of the underlying share on the date of grant (except with respect to certain substitute SARs granted in connection with a corporate transaction) and the term of a SAR may not be longer than ten years. Vesting conditions determined by the plan administrator may apply to SARs and may include continued service, performance and/or other conditions.

- *Restricted stock and RSUs.* Restricted stock is an award of nontransferable shares of our Class A common stock that remain forfeitable unless and until specified conditions are met, and which may be subject to a purchase price. RSUs are contractual promises to deliver shares of our Class A common stock in the future, which may also remain forfeitable unless and until specified conditions are met. Delivery of the shares underlying RSUs may be deferred under the terms of the award or at the election of the participant, if the plan administrator permits such a deferral. Conditions applicable to restricted stock and RSUs may be based on continuing service, the attainment of performance goals and/or such other conditions as the plan administrator may determine.
- *Stock payments.* Stock payments are awards of fully vested shares of our Class A common stock that may, but need not, be made in lieu of base salary, incentive, fees or other cash compensation otherwise payable to any individual who is eligible to receive awards. Other incentive awards are awards other than those enumerated in this summary that are denominated in, linked to or derived from shares of our Class A common stock or value metrics related to our shares, and may remain forfeitable unless and until specified conditions are met.
- *Dividend Equivalents.* Dividend equivalents represent the right to receive the equivalent value of dividends paid on shares of our Class A common stock and may be granted alone or in tandem with awards other than stock options or SARs. Dividend equivalents are credited as of dividend record dates occurring during the period between the date an award is granted and the date such award vests, is exercised, is distributed or expires, as determined by the plan administrator. Dividend equivalents may not be paid on awards granted under the Plan subject to performance based vesting unless and until such awards have vested.
- *Deferred stock awards:* Deferred stock awards represent the right to receive shares of our Class A common stock on a future date. The Plan provides that deferred stock may not be sold or otherwise hypothecated or transferred until issued. Deferred stock will not be issued until the deferred stock award has vested, and recipients of deferred stock generally will have no voting or dividend rights prior to the time when the vesting conditions are satisfied and the shares are issued. Deferred stock awards generally will be forfeited, and the underlying shares of deferred stock will not be issued, if the applicable vesting conditions and other restrictions are not met.
- *Deferred stock units:* Deferred stock units will be awarded to any eligible individual selected by the administrator, typically without payment of consideration, but may be subject to vesting conditions based on continued employment or service or on performance criteria established by the administrator. Each deferred stock unit shall entitle the holder thereof to receive one share of Class A common stock on the date the deferred stock unit becomes vested or upon a specified settlement date thereafter. The Plan provides that, like deferred stock, deferred stock units may not be sold, or otherwise transferred or hypothecated, until vesting conditions are removed or expire. Unlike deferred stock, deferred stock units may provide that shares of stock underlying the deferred stock units will not be issued until a specified date or event following the vesting date. Recipients of deferred stock units generally will have no voting or dividend rights prior to the time when vesting conditions are satisfied and the shares underlying the award have been issued to the holder.
- *Performance awards.* Performance Awards will be granted by the administrator in its discretion on an individual or group basis. Generally, these awards will be based upon specific performance targets and will

be paid in cash or in Class A common stock or in a combination of both. The Plan provides that performance awards may include “phantom” stock awards that provide for payments based upon the value of our Class A common stock and that performance awards may also include bonuses that may be granted by the administrator on an individual or group basis and which may be payable in cash or in Class A common stock or in a combination of both.

Section 162(m). Section 162(m) of the Code imposes a \$1,000,000 cap on the compensation deduction that a public company may take in respect of compensation paid to our “covered employees” (which includes our Chief Executive Officer and our next three most highly compensated employees other than our Chief Financial Officer), but excludes from the calculation of amounts subject to this limitation any amounts that constitute “qualified performance-based compensation,” or “QPBC,” within the meaning of Section 162(m) of the Code. Under current tax law, we do not expect Section 162(m) of the Code to apply to certain awards under the Plan until the earliest to occur of (1) our annual stockholders’ meeting at which members of our board of directors are to be elected that occurs after the close of the third calendar year following the calendar year in which occurred the first registration of our equity securities under Section 12 of the Exchange Act; (2) a material modification of the Plan; (3) an exhaustion of the share supply under the Plan; or (4) the expiration of the Plan. However, QPBC performance criteria may be used with respect to performance awards that are not intended to constitute QPBC. In addition, the company may issue awards that are not intended to constitute QPBC even if such awards might be non-deductible as a result of Section 162(m) of the Code.

In order to constitute QPBC under Section 162(m) of the Code, in addition to certain other requirements, the relevant amounts must be payable only upon the attainment of pre-established, objective performance goals set by our compensation committee and linked to stockholder-approved performance criteria. For purposes of the Plan, one or more of the following performance criteria will be used in setting performance goals applicable to QPBC, and may be used in setting performance goals applicable to other performance awards: (i) net earnings or losses (either before or after one or more of the following: (A) interest, (B) taxes, (C) depreciation and (D) amortization); (ii) gross or net sales; (iii) net sales growth or product sales growth; (iv) net income (either before or after taxes); (v) adjusted net income; (vi) operating earnings or profit (either before or after taxes); (vii) cash flow (including, but not limited to, operating cash flow and free cash flow); (viii) return on assets or net assets; (ix) return on capital and cost of capital; (x) return on stockholders’ equity; (xi) total stockholder return; (xii) return on sales; (xiii) gross or net profit or operating margin; (xiv) costs, reductions in costs and cost control measures; (xv) funds from operations or funds available for distributions; (xvi) expenses; (xvii) working capital; (xviii) earnings or loss per share; (xix) adjusted earnings per share; (xx) price per share of common stock or appreciation in and/or maintenance of such price; (xxi) economic value added models or similar metrics; (xxii) regulatory achievements or compliance (including, without limitation, regulatory body approval for commercialization of a product); (xxiii) implementation or completion of critical projects or processes; (xxiv) sales or market share; (xxv) licensing revenue; (xxvi) brand recognition/acceptance; (xxvii) inventory turns or cycle time and supply chain achievements (including, without limitation, establishing relationships with manufacturers or suppliers of components and manufacturers of the Company’s products); (xxviii) strategic initiatives (including, without limitation, with respect to market penetration, geographic business expansion, manufacturing, commercialization, production and productivity, customer satisfaction and growth, employee satisfaction, recruitment and maintenance of personnel, human resources management, supervision of litigation and other legal matters, information technology, strategic partnerships and transactions (including acquisitions, dispositions, joint ventures, in-licensing and out-licensing of intellectual property, and establishment of relationships with commercial entities with respect to the marketing, distribution and sale of Company products, R&D and related activity, and financial or other capital raising transactions); and (xxix) financial ratios (including, without limitation, those measuring liquidity, activity, profitability or leverage), any of which may be measured either in absolute terms or as compared to any

incremental increase or decrease or as compared to results of a peer group or to market performance indicators or indices. The Plan also permits the plan administrator to provide for objectively determinable adjustments to the applicable performance criteria in setting performance goals for QPBC awards.

Certain transactions. The plan administrator has broad discretion to take action under the Plan, as well as make adjustments to the terms and conditions of existing and future awards to prevent the dilution or enlargement of intended benefits and facilitate necessary or desirable changes in the event of certain transactions and events affecting our common stock, such as stock dividends, stock splits, mergers, acquisitions, consolidations and other corporate transactions. In addition, in the event of certain non-reciprocal transactions with our stockholders known as “equity restructurings,” the plan administrator will make equitable adjustments to the Plan and outstanding awards. In the event of a change in control of our company (as defined in the Plan), to the extent that the surviving entity declines to continue, convert, assume or replace outstanding awards, then the administrator may cause any or all of such awards to become fully vested and exercisable in connection with the transaction. Upon or in anticipation of a change of control, the plan administrator may cause any outstanding awards to terminate at a specified time in the future and give the participant the right to exercise such awards during a period of time determined by the plan administrator in its sole discretion. Individual award agreements may provide for additional accelerated vesting and payment provisions.

Foreign participants, claw-back provisions, transferability, and participant payments. The plan administrator may modify award terms, establish subplans and/or adjust other terms and conditions of awards, subject to the share limits described above, in order to facilitate grants of awards subject to the laws and/or stock exchange rules of countries outside of the United States. All awards will be subject to the provisions of any claw-back policy implemented by our company to the extent set forth in such claw-back policy and/or in the applicable award agreement. With limited exceptions for estate planning, domestic relations orders, certain beneficiary designations and the laws of descent and distribution, awards under the Plan are generally non-transferable prior to vesting, and are exercisable only by the participant. With regard to tax withholding, exercise price and purchase price obligations arising in connection with awards under the Plan, the plan administrator may, in its discretion, accept cash or check, shares of our Class A common stock that meet specified conditions, a “market sell order” or such other consideration as it deems suitable.

Plan amendment and termination. Our board of directors may amend or terminate the Plan at any time; however, except in connection with certain changes in our capital structure, stockholder approval will be required for any amendment that increases the number of shares available under the Plan, “reprices” any stock option or SAR, or cancels any stock option or SAR in exchange for cash or another award when the option or SAR price per share exceeds the fair market value of the underlying shares. No award may be granted pursuant to the Plan after the tenth anniversary of the date on which our board of directors adopts the Plan.

2016 Senior executive bonus plan

In connection with the offering, we intend to adopt the 2016 Senior Executive Incentive Bonus Plan, or the Executive Bonus Plan, to be effective as of the day immediately prior to this offering. The Executive Bonus Plan is intended to provide an incentive for superior work and to motivate covered key executives toward even greater achievement and business results, to tie their goals and interests to those of us and our stockholders and to enable us to attract and retain highly qualified executives. The principal features of the Executive Bonus Plan are summarized below.

The Executive Bonus Plan is an incentive bonus plan under which certain key executives, including our named executive officers, will be eligible to receive bonus payments. Bonuses will generally be payable under the Executive Bonus Plan upon the attainment of pre-established performance goals. Notwithstanding the foregoing, we may pay bonuses (including, without limitation, discretionary bonuses) to participants under the

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Executive Bonus Plan based upon such other terms and conditions as our compensation committee may in its sole discretion determine. The payment of a bonus under the Executive Bonus Plan to a participant with respect to a performance period will generally be conditioned on such participant's continued employment on the last day of such performance period, provided that our compensation committee may make exceptions to this requirement in its sole discretion.

The performance goals under the Executive Bonus Plan will relate to one or more financial, operational or other metrics with respect to individual or company performance with respect to us or any of our affiliates, including but not limited to the following possible performance goals: (i) net earnings or losses (either before or after one or more of the following: (A) interest, (B) taxes, (C) depreciation and (D) amortization); (ii) gross or net sales; (iii) net sales growth or product sales growth; (iv) net income (either before or after taxes); (v) adjusted net income; (vi) operating earnings or profit (either before or after taxes); (vii) cash flow (including, but not limited to, operating cash flow and free cash flow); (viii) return on assets or net assets; (ix) return on capital and cost of capital; (x) return on stockholders' equity; (xi) total stockholder return; (xii) return on sales; (xiii) gross or net profit or operating margin; (xiv) costs, reductions in costs and cost control measures; (xv) funds from operations or funds available for distributions; (xvi) expenses; (xvii) working capital; (xviii) earnings or loss per share; (xix) adjusted earnings per share; (xx) price per share of common stock of the Company or appreciation in and/or maintenance of such price; (xxi) economic value added models or similar metrics; (xxii) regulatory achievements or compliance (including, without limitation, regulatory body approval for commercialization of a product); (xxiii) implementation or completion of critical projects or processes; (xxiv) sales or market share; (xxv) licensing revenue; (xxvi) brand recognition/acceptance; (xxvii) inventory turns or cycle time and supply chain achievements (including, without limitation, establishing relationships with manufacturers or suppliers of components and manufacturers of the Company's products); (xxviii) strategic initiatives (including, without limitation, with respect to market penetration, geographic business expansion, manufacturing, commercialization, production and productivity, customer satisfaction and growth, employee satisfaction, recruitment and maintenance of personnel, human resources management, supervision of litigation and other legal matters, information technology, strategic partnerships and transactions (including acquisitions, dispositions, joint ventures, in-licensing and out-licensing of intellectual property, and establishment of relationships with commercial entities with respect to the marketing, distribution and sale of Company products, R&D and related activity, and financial or other capital raising transactions); and (xxix) financial ratios (including, without limitation, those measuring liquidity, activity, profitability or leverage), any of which may be measured either in absolute terms or as compared to any incremental increase or decrease or as compared to results of a peer group or to market performance indicators or indices. The Plan also permits the plan administrator to provide for objectively determinable adjustments to the applicable performance criteria in setting performance goals for Executive Bonus Plan awards.

The Executive Bonus Plan is administered by our compensation committee. Our compensation committee will select the participants in the Executive Bonus Plan and any performance goals to be utilized with respect to the participants, establish the bonus formulas for each participant's annual bonus, and certify whether any applicable performance goals have been met with respect to a given performance period. The Executive Bonus Plan provides that we may amend or terminate the Executive Bonus Plan at any time in our sole discretion. Any amendments to the Executive Bonus Plan will require stockholder approval only to the extent required by applicable law, rule or regulation. The Executive Bonus Plan will expire on the earliest of:

- The first material modification of the Executive Bonus Plan;
- The first stockholders meeting at which members of our board of directors are elected during 2020; or
- Such other date required by Section 162(m) of the Code.

Certain relationships and related party transactions

The following is a description of transactions since our inception to which we have been a party in which the amount involved exceeds \$120,000 and in which any of our directors, executive officers or beneficial holders of more than 5% of our Class A common stock, or an affiliate or immediate family member thereof, had or will have a direct or indirect material interest.

Each agreement described below is filed as an exhibit to the registration statement of which this prospectus forms a part, and the following descriptions are qualified by reference to such agreements.

Compensation arrangements for our directors and named executive officers are described in this prospectus under the section entitled “Executive compensation.”

Limitation of liability and indemnification

Our amended and restated certificate of incorporation and our amended and restated bylaws, each of which will be effective upon the closing of this offering, will provide that we will indemnify our directors and officers to the fullest extent permitted under Delaware law, which prohibits our amended and restated certificate of incorporation from limiting the liability of our directors for the following:

- any breach of the director’s duty of loyalty to us or our stockholders;
- acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;
- unlawful payment of dividends or unlawful stock repurchases or redemptions; or
- any transaction from which the director derived an improper personal benefit.

Our amended and restated certificate of incorporation and our amended and restated bylaws will also provide that if Delaware law is amended to authorize corporate action further eliminating or limiting the personal liability of a director, then the liability of our directors will be eliminated or limited to the fullest extent permitted by Delaware law, as so amended. This limitation of liability does not apply to liabilities arising under the federal securities laws and does not affect the availability of equitable remedies such as injunctive relief or rescission.

Our amended and restated certificate of incorporation and our amended and restated bylaws will also provide that we shall have the power to indemnify our employees and agents to the fullest extent permitted by law. Our amended and restated bylaws also permit us to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in this capacity, regardless of whether we would have the power to indemnify such person against such expense, liability or loss under the General Corporation Law of the State of Delaware. We have obtained directors’ and officers’ liability insurance.

In connection with this offering, we intend to enter into separate indemnification agreements with our directors and executive officers, in addition to indemnification provided for in our amended and restated certificate of incorporation and amended and restated bylaws. These agreements, among other things, provide for indemnification of our directors and executive officers for expenses, judgments, fines and settlement amounts incurred by this person in any action or proceeding arising out of this person’s services as a director or executive officer or at our request. We believe that these provisions in our amended and restated certificate of incorporation and amended and restated bylaws and indemnification agreements are necessary to attract and retain qualified persons as directors and executive officers.

The above description of the indemnification provisions of our amended and restated certificate of incorporation, our amended and restated bylaws and our indemnification agreements is not complete and is qualified in its entirety by reference to these documents, each of which is filed as an exhibit to this registration statement to which this prospectus forms a part.

The limitation of liability and indemnification provisions in our amended and restated certificate of incorporation and amended and restated bylaws may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duties. They may also reduce the likelihood of derivative litigation against directors and officers, even though an action, if successful, might benefit us and our stockholders. A stockholder's investment may be harmed to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions. Insofar as indemnification for liabilities under the Securities Act may be permitted to directors, officers or persons controlling us pursuant to the foregoing provisions, we have been informed that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable. There is no pending litigation or proceeding naming any of our directors or officers as to which indemnification is being sought, nor are we aware of any pending or threatened litigation that may result in claims for indemnification by any director or officer.

Tax Receivable Agreement

We expect to obtain an increase in our share of the tax basis of the assets of Bioventus LLC when (as described below under “—Bioventus LLC Agreement—LLC Interest Redemption Right”) a Continuing LLC Owner receives shares of our Class A common stock or, if we and such Continuing LLC Owners agree, cash in connection with an exercise of such Continuing LLC Owner's right to have LLC Interests held by such Continuing LLC Owner redeemed by Bioventus LLC or, at the election of Bioventus, Inc., directly exchanged (such basis increase, the “Basis Adjustments”). We intend to treat such acquisition of LLC Interests as our direct purchase of LLC Interests from a Continuing LLC Owner for U.S. federal income and other applicable tax purposes, regardless of whether such LLC Interests are surrendered by a Continuing LLC Owner to Bioventus LLC for redemption or sold to us upon the exercise of our election to acquire such LLC Interests directly. A Basis Adjustment may have the effect of reducing the amounts that we would otherwise pay in the future to various tax authorities. The Basis Adjustments may also decrease gains (or increase losses) on future dispositions of certain capital assets to the extent tax basis is allocated to those capital assets.

In connection with the transactions described above, we will enter into the Tax Receivable Agreement (the “TRA”) with the Continuing LLC Owners. The TRA will provide for our payment to such persons of 85% of the amount of tax benefits, if any, that we actually realize, or in some circumstances are deemed to realize, as a result of any Basis Adjustments and certain other tax benefits related to our making payments under the TRA. Bioventus LLC will have in effect an election under Section 754 of the Code effective for each taxable year in which a redemption or exchange (including deemed exchange) of LLC Interests for shares of our Class A common stock or cash occurs. These TRA payments are not conditioned upon any continued ownership interest in either Bioventus LLC or us by any Continuing LLC Owner. The rights of each Continuing LLC Owner under the TRA are assignable to transferees of its LLC Interests (other than Bioventus as transferee pursuant to subsequent redemptions (or exchanges) of the transferred LLC Interests). We expect to benefit from the remaining 15% of tax benefits, if any, that we may actually realize.

The actual Basis Adjustments, as well as any amounts paid to the Continuing LLC Owners under the TRA, will vary depending on a number of factors, including:

- *the timing of any subsequent redemptions or exchanges*—for instance, the increase in any tax deductions will vary depending on the fair value, which may fluctuate over time, of the depreciable or amortizable assets of Bioventus LLC at the time of each redemption or exchange;
- *the price of shares of our Class A common stock at the time of redemptions or exchanges*—the Basis Adjustments, as well as any related increase in any tax deductions, is directly related to the price of shares of our Class A common stock at the time of each redemption or exchange;

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- *the extent to which such redemptions or exchanges are taxable*—if a redemption or exchange is not taxable for any reason, increased tax deductions will not be available; and
- *the amount and timing of our income*—the TRA generally will require Bioventus to pay 85% of the tax benefits as and when those benefits are treated as realized under the terms of the TRA. Except as discussed below with respect to a material breach of a material obligation under the TRA, a change of control, and an early termination of the TRA if Bioventus does not have taxable income, it generally will not be required to make payments under the TRA, for that taxable year because no tax benefits will have been actually realized. However, any tax benefits that do not result in realized tax benefits in a given taxable year will likely generate tax attributes that may be utilized to generate tax benefits in previous or future taxable years. The utilization of any such tax attributes will result in payments under the TRA.

For purposes of the TRA, cash savings in income tax will be computed by comparing our actual income tax liability to the amount of such taxes that we would have been required to pay had there been no Basis Adjustments and had the TRA not been entered into. The TRA will generally apply to each of our taxable years, beginning with the first taxable year ending after the consummation of the offering. There is no maximum term for the TRA; however, the TRA may be terminated by us pursuant to an early termination procedure that requires us to pay the Continuing LLC Owners an agreed upon amount equal to the estimated present value of the remaining payments to be made under the agreement (calculated based on certain assumptions, including regarding tax rates and utilization of the Basis Adjustments).

The payment obligations under the TRA are obligations of Bioventus and not of Bioventus LLC. Although the actual timing and amount of any payments that may be made under the TRA will vary, we expect that the payments that we may be required to make to the Continuing LLC Owners could be significant. Any payments made by us to Continuing LLC Owners under the TRA will generally reduce the amount of overall cash flow that might have otherwise been available to us or to Bioventus LLC and, to the extent that we are unable to make payments under the TRA for any reason, the unpaid amounts generally will be deferred and will accrue interest until paid by us. Decisions made by us in the course of running our business, such as with respect to mergers, asset sales, other forms of business combinations or other changes in control, may influence the timing and amount of payments that are received by a Continuing LLC Owner under the TRA. For example, the earlier disposition of assets following a transaction that results in a Basis Adjustment will generally accelerate payments under the TRA and increase the present value of such payments. We anticipate funding ordinary course payments under the TRA from distributions from Bioventus LLC out of distributable cash, to the extent permitted by our agreements governing our indebtedness. See “—Bioventus LLC Agreement.”

The TRA provides that if (i) we materially breach any of our material obligations under the TRA, (ii) certain mergers, asset sales, other forms of business combination, or other changes of control were to occur, on or before December 31, 2017 or (iii) we elect an early termination of the TRA, then our obligations, or our successor’s obligations, under the TRA would be based on certain assumptions, including an assumption that we would have sufficient taxable income to fully utilize all potential future tax benefits that are subject to the TRA. The TRA also provides that in the case of certain mergers, asset sales, other forms of business combination or other changes of control occurring on or after January 1, 2018, payments under the TRA would be based on certain assumptions, including an assumption that in each taxable year ending on or after the change of control, we would have taxable income equal to the greater of (A) actual taxable income for such taxable year and (B) the product of (x) four and (y) the highest taxable income in any of the four fiscal quarters ended prior to the change in control (increased by 10% for each taxable year beginning with the second taxable year following the change in control), in each case, as adjusted to take into account our actual percentage ownership in Bioventus LLC for the taxable year for which the tax benefit payment is being determined.

As a result of the foregoing, (i) we could be required to make cash payments to the Continuing LLC Owners that are greater than the specified percentage of the actual benefits we ultimately realize in respect of the tax benefits that are subject to the TRA, and (ii) if we materially breach any of our material obligations under the TRA or if we elect to terminate the TRA early, we would be required to make an immediate cash payment equal to the present value of the anticipated future tax benefits that are the subject of the TRA, which payment may be made significantly in advance of the actual realization, if any, of such future tax benefits. In these situations, our obligations under the TRA could have a material adverse effect on our liquidity and could have the effect of delaying, deferring or preventing certain mergers, asset sales, other forms of business combination, or other changes of control. There can be no assurance that we will be able to finance our obligations under the TRA. We may elect to completely terminate the TRA early only with the written approval of a majority of our directors other than any directors that have been appointed or designated by a Continuing LLC Member or any of such person's affiliates.

Payments under the TRA will be based on the tax reporting positions that we determine. Pursuant to the TRA, Continuing LLC Members are required to reimburse us for cash payments previously made to any Continuing LLC Owner pursuant to the TRA if any tax benefits initially claimed by us are subsequently challenged by a taxing authority and ultimately disallowed. In addition, but without duplication of any amounts previously reimbursed by a Continuing LLC Member, any excess cash payments made by us to a Continuing LLC Owner will be netted against any future cash payments that we might otherwise be required to make under the terms of the TRA. However, a challenge to any tax benefits initially claimed by us may not arise for a number of years following the initial time of such payment and we might not determine that we have effectively made an excess cash payment to the Continuing LLC Owners for a number of years following the initial time of such payment. Moreover, there can be no assurance that any excess cash payments for which a Continuing LLC Member has a reimbursement obligation under the TRA will be repaid to us. As a result, it is possible that we could make cash payments under the TRA that are substantially greater than our actual cash tax savings. The applicable U.S. federal income tax rules are complex and factual in nature, and we cannot assure you that the IRS or a court will not disagree with our tax reporting positions. We will have full responsibility for, and sole discretion over, all Bioventus' and Bioventus LLC's tax matters, including the filing and amendment of all tax returns and claims for refund and defense of all tax contests, subject to certain participation and approval rights held by the Continuing LLC Owners.

Payments are generally due under the TRA within a specified period of time following the filing of our tax return for the taxable year with respect to which the payment obligation arises, although interest on such payments will begin to accrue at a rate of LIBOR plus 100 basis points from the due date (without extensions) of such tax return and ending on the date that such payments are required to be made under the terms of the TRA. Any late payments that may be made under the TRA will continue to accrue interest at LIBOR plus 500 basis points from the due date of such payments under the TRA until such payments are made, including any late payments that we may subsequently make because we did not have enough available cash to satisfy our payment obligations at the time at which they originally arose, including as a result of restrictions on payments to our equity owners in the agreements governing our indebtedness.

Bioventus LLC Agreement

We will operate our business through Bioventus LLC and its subsidiaries. In connection with the completion of this offering, we and the Continuing LLC Owners will enter into Bioventus LLC's second amended and restated limited liability company agreement, which we refer to as the "Bioventus LLC Agreement." The operations of Bioventus LLC, and the rights and obligations of the holders of LLC Interests, will be set forth in the Bioventus LLC Agreement.

Stockholders Agreement

Substantially concurrent with the closing of this offering, the Voting Group, which will hold Class A common stock or Class B common stock representing approximately % of the combined voting power of our Class A and Class B common stock intend to enter into the Stockholders Agreement. Pursuant to the terms of the Stockholders Agreement, until such time as certain members of the Voting Group collectively control less than % of the combined voting power of our Class A and Class B common stock, or the Stockholders Agreement is otherwise terminated in accordance with its terms, the parties to the Stockholders Agreement will agree to vote their shares of Class A common stock and Class B common stock in favor of the election of the nominees of certain members of the Voting Group to our board of directors upon their nomination by the nominating and corporate governance committee of our board of directors.

Registration Rights Agreement

We intend to enter into a Registration Rights Agreement with certain of the Original LLC Owners in connection with this offering. The Registration Rights Agreement will provide certain of the Original LLC Owners certain registration rights whereby, at any time following our initial public offering and the expiration of any related lock-up period, certain of the Continuing LLC Owners can require us to register under the Securities Act shares of Class A common stock issuable to them upon, at our election, redemption or exchange of their LLC Interests and certain of the Former LLC Owners can require us to register under the Securities Act the shares of Class A common stock issued to them in connection with the Transactions. The Registration Rights Agreement will also provide for piggyback registration rights for certain of the Original LLC Owners.

Policies and procedures for related party transactions

Our board of directors has adopted a written related person transaction policy, to be effective upon the closing of this offering, setting forth the policies and procedures for the review and approval or ratification of related person transactions. This policy will cover, with certain exceptions set forth in Item 404 of Regulation S-K under the Securities Act, any transaction, arrangement or relationship, or any series of similar transactions, arrangements or relationships, in which we were or are to be a participant, where the amount involved exceeds \$120,000 in any fiscal year and a related person had, has or will have a direct or indirect material interest, including without limitation, purchases of goods or services by or from the related person or entities in which the related person has a material interest, indebtedness, guarantees of indebtedness and employment by us of a related person. In reviewing and approving any such transactions, our audit committee is tasked to consider all relevant facts and circumstances, including, but not limited to, whether the transaction is on terms comparable to those that could be obtained in an arm's length transaction and the extent of the related person's interest in the transaction. All of the transactions described in this section occurred prior to the adoption of this policy.

Principal stockholders

The following table presents information as to the beneficial ownership of our Class A common stock and Class B common stock, after the consummation of the Transactions, including this offering, for:

- each person, or group of affiliated persons, known by us to beneficially own more than 5% of our Class A common stock or our Class B common stock;
- each named executive officer;
- each of our directors; and
- all executive officers and directors as a group.

As described in “Transactions” and “Certain relationships and related party transactions,” each Continuing LLC Owner will be entitled to have their LLC Interests redeemed for Class A common stock on a one-for-one basis, or, if Bioventus and such person agree, cash equal to the market value of the applicable number of our shares of Class A common stock. In addition, at Bioventus’ election, Bioventus may effect a direct exchange of such Class A common stock or such cash (if mutually agreed) for such LLC Interests in lieu of such a redemption. In connection with this offering, we will issue to each Continuing LLC Owner one share of Class B common stock for each LLC Interest it owns. As a result, the number of shares of Class B common stock listed in the table below correlates to the number of LLC Interests each such Continuing LLC Owner will own immediately prior to and after this offering (but after giving effect to the Transactions other than this offering). See “Transactions.”

The number of shares beneficially owned by each stockholder is determined under rules issued by the SEC and includes voting or investment power with respect to securities. Under these rules, beneficial ownership includes any shares as to which the individual or entity has sole or shared voting power or investment power. In computing the number of shares beneficially owned by an individual or entity and the percentage ownership of that person, shares of common stock subject to options, or other rights, including the redemption right described above, held by such person that are currently exercisable or will become exercisable within 60 days of the date of this prospectus, are considered outstanding, although these shares are not considered outstanding for purposes of computing the percentage ownership of any other person. Unless otherwise indicated, the address of each of the individuals and entities named below is c/o Bioventus Inc., 4721 Emperor Boulevard, Suite 100, Durham, NC 27703. Each of the stockholders listed has sole voting and investment power with respect to the shares beneficially owned by the stockholder unless noted otherwise, subject to community property laws where applicable.

Name of beneficial owner	Shares of class A common stock beneficially owned		Shares of class B common stock beneficially owned		Total common stock beneficially owned
	Number	Percentage	Number	Percentage	Percentage
5% Stockholders					
Essex Woodlands Health Ventures(1)		%		%	%
Smith & Nephew(2)		%		%	%
Spindletop Healthcare Capital L.P.(3)		%		%	%
Pantheon Global Co-Investment Opportunities Fund L.P.(4)		%		%	%
Ampersand Capital(5)		%		%	%
Alta Partners VII, L.P.(6)		%		%	%

Name of beneficial owner	Shares of class A common stock beneficially owned		Shares of class B common stock beneficially owned		Total common stock beneficially owned
	Number	Percentage	Number	Percentage	Percentage
Named Executive Officers and Directors					
Anthony P. Bihl III		%		%	%
David J. Price		%		%	%
Henry C. Tung, M.D.		%		%	%
All directors and executive officers as a group (3 persons)		%		%	%

* Represents beneficial ownership of less than 1%.

- (1) Represents shares held by Essex Woodlands Health Ventures Fund VIII, L.P., Essex Woodlands Health Ventures Fund VIII-A, L.P. and Essex Woodlands Health Ventures Fund VIII-B, L.P., which we collectively refer to as the "Essex Stockholders." Essex Woodlands Health Ventures VIII, L.P., a Delaware limited partnership, is the general partner of each of the Essex Stockholders and is referred to as the "Partnership," and Essex Woodlands Health Ventures VIII, LLC, a Delaware limited liability company, is the general partner of the Partnership and is referred to as the "General Partner." James L. Currie, Martin P. Sutter, Immanuel Thangaraj, Petri Vainio, Jeff Himawan, Ron Eastman, Guido Neels and Steve Wiggins are the managers of the General Partner, and each is referred to as a "Manager" and collectively as the "Managers." The Partnership is deemed to have sole voting and dispositive power with respect to the shares held by each of the Essex Stockholders. The Managers are deemed to have shared voting and dispositive power with respect to the shares held by each of the Essex Stockholders by unanimous consent and through the Partnership. Each Manager disclaims beneficial ownership of such shares except to the extent of his pecuniary interest therein. The address of the Essex Stockholders is 21 Water Way Avenue, Suite 225, The Woodlands, Texas 77380.
- (2) Represents shares held by Smith & Nephew, Inc. and Smith & Nephew OUS, Inc., which we collectively refer to as the "S&N Stockholders." The address of the S&N Stockholders is 7135 Goodlett Farms, Cordova, Tennessee 38106.
- (3) Represents shares held by Spindletop Healthcare Capital L.P. Evan Melrose is the Manager of the General Partner of the General Partner of Spindletop Healthcare Capital L.P. and may be deemed to have shared voting and dispositive power with respect to the shares held by Spindletop Healthcare Capital L.P. The address of Spindletop Healthcare Capital L.P. is 3571 Far West Blvd., PMB #108, Austin, Texas 78731.
- (4) Represents shares held by Pantheon Global Co-Investment Opportunities Fund L.P. David Braman, Susan Long McAndrews and Lily Wong are directors of Pantheon Global Co-Investment Opportunities GP Limited, the general partner of Pantheon Global Co-Investment Opportunities Fund, L.P. and make the investment and voting decisions with respect to shares held by of Pantheon Global Co-Investment Opportunities Fund, L.P. The address of Pantheon Global Co-Investment Opportunities Fund L.P. is 600 Montgomery Street, 23rd Floor, San Francisco, CA 94111.
- (5) Represents shares held by Ampersand 2006 Limited Partnership 1 and Ampersand 2011 Limited Partnership which we collectively refer to as the "Ampersand Capital Stockholders." The address of the Ampersand Capital Stockholders is in care of Ampersand Capital Partners, 55 William Street, Suite 240, Wellesley, Massachusetts 02481,
- (6) Represents shares held by Alta Partners VIII, L.P. Alta Partners Management VIII, LLC is the general partner of Alta Partners VIII, L.P. Guy Nohra, Daniel Janney and Farah Champs are managing directors of Alta Partners Management VIII, LLC and exercise shared voting and investment powers with respect to the shares owned by Alta Partners VIII, L.P. Each of the reporting persons disclaims beneficial ownership of such shares, except to the extent of their proportionate pecuniary interest therein, if any. The principal business address of Alta Partners VIII, L.P. is One Embarcadero Center, 37th Floor San Francisco, CA 94111.

Description of capital stock

The following descriptions of our capital stock and provisions of our amended and restated certificate of incorporation, and our bylaws, each of which will be in effect prior to the completion of this offering, are summaries and are qualified by reference to the amended and restated certificate of incorporation and the bylaws, which are filed as exhibits to the registration statement of which this prospectus forms a part.

Our current authorized capital stock consists of _____ shares of Common Stock, par value \$ _____ per share. As of the consummation of this offering, our authorized capital stock will consist of _____ shares of Class A common stock, par value \$ _____, _____ shares of Class B common stock, par value \$ _____ per share, and _____ shares of preferred stock.

Common stock

As of the consummation of this offering, there will be _____ shares of our Class A common stock issued and outstanding, and _____ shares of our Class B common stock issued and outstanding.

Class A common stock

Voting rights

Holders of our Class A common stock will be entitled to cast one vote per share. Holders of our Class A common stock will not be entitled to cumulate their votes in the election of directors. Generally, all matters to be voted on by stockholders must be approved by a majority (or, in the case of election of directors, by a plurality) of the votes entitled to be cast by all holders of Class A common stock and Class B common stock present in person or represented by proxy, voting together as a single class. Except as otherwise provided by law, amendments to the amended and restated certificate of incorporation must be approved by a majority or, in some cases, a super-majority of the combined voting power of all shares of Class A common stock and Class B common stock, voting together as a single class.

Dividend rights

Holders of Class A common stock will share ratably (based on the number of shares of Class A common stock held) if and when any dividend is declared by the board of directors out of funds legally available therefor, subject to any statutory or contractual restrictions on the payment of dividends and to any restrictions on the payment of dividends imposed by the terms of any outstanding preferred stock.

Liquidation rights

On our liquidation, dissolution or winding up, each holder of Class A common stock will be entitled to a pro rata distribution of any assets available for distribution to common stockholders.

Other matters

No shares of Class A common stock will be subject to redemption or have preemptive rights to purchase additional shares of Class A common stock. Holders of shares of our Class A common stock do not have subscription, redemption or conversion rights. There will be no redemption or sinking fund provisions applicable to the Class A common stock. Upon consummation of this offering, all the outstanding shares of Class A common stock will be validly issued, fully paid and non-assessable.

Class B common stock

Issuance of class B common stock with LLC interests

Shares of Class B common stock will only be issued in the future to the extent necessary to maintain a one-to-one ratio between the number of LLC Interests held by Continuing LLC Owners and the number of shares

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of Class B common stock issued to Continuing LLC Owners. Shares of Class B common stock are transferable only together with an equal number of LLC Interests. Shares of Class B common stock will be cancelled on a one-for-one basis if we, at the election of a Continuing LLC Owner, redeem or exchange LLC Interests of such Continuing LLC Owners pursuant to the terms of the Bioventus LLC Agreement.

Voting rights

Holders of Class B common stock will be entitled to cast one vote per share, with the number of shares of Class B common stock held by each Continuing LLC Owner being equivalent to the number of LLC Interests held by such Continuing LLC Owner. Holders of our Class B common stock will not be entitled to cumulate their votes in the election of directors.

Generally, all matters to be voted on by stockholders must be approved by a majority (or, in the case of election of directors, by a plurality) of the votes entitled to be cast by all Class A and Class B stockholders present in person or represented by proxy, voting together as a single class. Except as otherwise provided by law, amendments to the amended and restated certificate of incorporation must be approved by a majority or, in some cases, a super-majority of the combined voting power of all shares of Class A common stock and Class B common stock, voting together as a single class.

Dividend rights

Holders of our Class B common stock will not participate in any dividend declared by the board of directors.

Liquidation rights

On our liquidation, dissolution or winding up, holders of Class B common stock will not be entitled to receive any distribution of our assets.

Transfers

Pursuant to the Bioventus LLC Agreement, each holder of Class B common stock agrees that:

- the holder will not transfer any shares of Class B common stock to any person unless the holder transfers an equal number of LLC Interests to the same person; and
- in the event the holder transfers any LLC Interests to any person, the holder will transfer an equal number of shares of Class B common stock to the same person.

Other matters

No shares of Class B common stock will have preemptive rights to purchase additional shares of Class B common stock. Holders of shares of our Class B common stock do not have subscription, redemption or conversion rights. There will be no redemption or sinking fund provisions applicable to the Class B common stock. Upon consummation of this offering, all outstanding shares of Class B common stock will be validly issued, fully paid and nonassessable.

Preferred stock

Our amended and restated certificate of incorporation provides that our board of directors has the authority, without action by the stockholders, to designate and issue up to shares of preferred stock in one or more classes or series and to fix the powers, rights, preferences, and privileges of each class or series of preferred stock, including dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences and the number of shares constituting any class or series, which may be greater than the rights of the holders of the common stock. There will be no shares of preferred stock outstanding immediately after this offering.

The purpose of authorizing our board of directors to issue preferred stock and determine its rights and preferences is to eliminate delays associated with a stockholder vote on specific issuances. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions, future financings and other corporate purposes, could have the effect of making it more difficult for a third-party to acquire, or could discourage a third-party from seeking to acquire, a majority of our outstanding voting stock. Additionally, the issuance of preferred stock may adversely affect the holders of our Class A common stock by restricting dividends on the Class A common stock, diluting the voting power of the Class A common stock or subordinating the liquidation rights of the Class A common stock. As a result of these or other factors, the issuance of preferred stock could have an adverse impact on the market price of our Class A common stock.

Exclusive venue

Our amended and restated certificate of incorporation, as it will be in effect upon the closing of this offering, will require, to the fullest extent permitted by law, that (1) any derivative action or proceeding brought on our behalf, (2) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers or other employees to us or our stockholders, (3) any action asserting a claim against us arising pursuant to any provision of the DGCL or our amended and restated certificate of incorporation or the bylaws or (4) any action asserting a claim against us governed by the internal affairs doctrine will have to be brought only in the Court of Chancery in the State of Delaware. Although we believe this provision benefits us by providing increased consistency in the application of Delaware law in the types of lawsuits to which it applies, the provision may have the effect of discouraging lawsuits against our directors and officers.

Anti-takeover effects of provisions of our amended and restated certificate of incorporation, our bylaws and delaware law

Our certificate of incorporation and bylaws, as they will be in effect upon completion of this offering, also contain provisions that may delay, defer or discourage another party from acquiring control of us. We expect that these provisions, which are summarized below, will discourage coercive takeover practices or inadequate takeover bids. These provisions are also designed to encourage persons seeking to acquire control of us to first negotiate with our board of directors, which we believe may result in an improvement of the terms of any such acquisition in favor of our stockholders. However, they also give our board of directors the power to discourage acquisitions that some stockholders may favor.

Classified board of directors

Our amended and restated certificate of incorporation will provide that our board of directors will be divided into three classes, with the classes as nearly equal in number as possible and each class serving three-year staggered terms. In addition, our amended and restated certificate of incorporation will provide that directors may only be removed from our board of directors with cause. These provisions may have the effect of deferring, delaying or discouraging hostile takeovers, or changes in control of us or our management.

Authorized but unissued shares

The authorized but unissued shares of common stock and preferred stock are available for future issuance without stockholder approval, subject to any limitations imposed by the listing standards of The NASDAQ Global Market. These additional shares may be used for a variety of corporate finance transactions, acquisitions and employee benefit plans. The existence of authorized but unissued and unreserved common stock and preferred stock could make more difficult or discourage an attempt to obtain control of us by means of a proxy contest, tender offer, merger or otherwise.

Requirements for advance notification of stockholder meetings, nominations and proposals

Our amended and restated certificate of incorporation will provide that stockholders at an annual meeting may only consider proposals or nominations specified in the notice of meeting or brought before the meeting by or at the direction of our board of directors or by a qualified stockholder of record on the record date for the meeting, who is entitled to vote at the meeting and who has delivered timely written notice in proper form to our secretary of the stockholder's intention to bring such business before the meeting. Our amended and restated certificate of incorporation will provide that, subject to applicable law, special meetings of the stockholders may be called only by a resolution adopted by the affirmative vote of the majority of the directors then in office. Our bylaws will prohibit the conduct of any business at a special meeting other than as specified in the notice for such meeting. In addition, any stockholder who wishes to bring business before an annual meeting or nominate directors must comply with the advance notice and duration of ownership requirements set forth in our bylaws and provide us with certain information. These provisions may have the effect of deferring, delaying or discouraging hostile takeovers or changes in control of us or our management.

Stockholder action by written consent

Pursuant to Section 228 of the DGCL, any action required to be taken at any annual or special meeting of the stockholders may be taken without a meeting, without prior notice and without a vote if a consent or consents in writing, setting forth the action so taken, is signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares of our stock entitled to vote thereon were present and voted, unless our amended and restated certificate of incorporation provides otherwise. Our amended and restated certificate of incorporation will provide that stockholder action by written consent will be permitted only if the action to be effected by such written consent and the taking of such action by such written consent have been previously approved by the board of directors.

Amendment of amended and restated certificate of incorporation or bylaws

The Delaware General Corporation Law provides generally that the affirmative vote of a majority of the shares entitled to vote on any matter is required to amend a corporation's certificate of incorporation or bylaws, unless a corporation's certificate of incorporation or bylaws, as the case may be, requires a greater percentage. Upon completion of this offering, our bylaws may be amended or repealed by a majority vote of our board of directors or by the affirmative vote of the holders of at least 66-²/₃% of the votes which all our stockholders would be entitled to cast in any annual election of directors. In addition, the affirmative vote of the holders of at least 66-²/₃% of the votes which all our stockholders would be entitled to cast in any election of directors will be required to amend or repeal or to adopt any provisions inconsistent with any of the provisions of our certificate described above.

The foregoing provisions of our amended and restated certificate of incorporation and bylaws could discourage potential acquisition proposals and could delay or prevent a change in control. These provisions are intended to enhance the likelihood of continuity and stability in the composition of our board of directors and in the policies formulated by our board of directors and to discourage certain types of transactions that may involve an actual or threatened change of control. These provisions are designed to reduce our vulnerability to an unsolicited acquisition proposal. The provisions also are intended to discourage certain tactics that may be used in proxy fights. However, such provisions could have the effect of discouraging others from making tender offers for our shares and, as a consequence, they also may inhibit fluctuations in the market price of our shares of Class A common stock that could result from actual or rumored takeover attempts. Such provisions also may have the effect of preventing changes in our management or delaying or preventing a transaction that might benefit you or other minority stockholders.

In addition, we are subject to Section 203 of the Delaware General Corporation Law. Subject to certain exceptions, Section 203 prevents a publicly held Delaware corporation from engaging in a “business combination” with any “interested stockholder” for three years following the date that the person became an interested stockholder, unless the interested stockholder attained such status with the approval of our board of directors or unless the business combination is approved in a prescribed manner. A “business combination” includes, among other things, a merger or consolidation involving us and the “interested stockholder” and the sale of more than 10% of our assets. In general, an “interested stockholder” is any entity or person beneficially owning 15% or more of our outstanding voting stock and any entity or person affiliated with or controlling or controlled by such entity or person.

Limitations on liability and indemnification of officers and directors

Our amended and restated certificate of incorporation and bylaws provide indemnification for our directors and officers to the fullest extent permitted by the DGCL. Prior to the completion of this offering, we intend to enter into indemnification agreements with each of our directors that may, in some cases, be broader than the specific indemnification provisions contained under Delaware law. In addition, as permitted by Delaware law, our amended and restated certificate of incorporation includes provisions that eliminate the personal liability of our directors for monetary damages resulting from breaches of certain fiduciary duties as a director. The effect of this provision is to restrict our rights and the rights of our stockholders in derivative suits to recover monetary damages against a director for breach of fiduciary duties as a director, except that a director will be personally liable for:

- any breach of his duty of loyalty to us or our stockholders;
- acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law;
- any transaction from which the director derived an improper personal benefit; or
- improper distributions to stockholders.

These provisions may be held not to be enforceable for violations of the federal securities laws of the United States.

Corporate opportunities

In recognition that partners, principals, directors, officers, members, managers and/or employees of the Continuing LLC Owners and their affiliates and investment funds, which we refer to as the Corporate Opportunity Entities, may serve as our directors and/or officers, and that the Corporate Opportunity Entities may engage in activities or lines of business similar to those in which we engage, our amended and restated certificate of incorporation provides for the allocation of certain corporate opportunities between us and the Corporate Opportunity Entities. Specifically, none of the Corporate Opportunity Entities has any duty to refrain from engaging, directly or indirectly, in the same or similar business activities or lines of business that we do. In the event that any Corporate Opportunity Entity acquires knowledge of a potential transaction or matter which may be a corporate opportunity for itself and us, we will not have any expectancy in such corporate opportunity, and the Corporate Opportunity Entity will not have any duty to communicate or offer such corporate opportunity to us and may pursue or acquire such corporate opportunity for itself or direct such opportunity to another person. In addition, if a director of our Company who is also a partner, principal, director, officer, member, manager or employee of any Corporate Opportunity Entity acquires knowledge of a potential transaction or matter which may be a corporate opportunity for us and a Corporate Opportunity Entity, we will not have any expectancy in such corporate opportunity. In the event that any other director of ours acquires knowledge of a potential transaction or matter which may be a corporate opportunity for us we will not have any expectancy in such corporate opportunity unless such potential transaction or matter was presented to such director expressly in his or her capacity as such.

By becoming a stockholder in our Company, you will be deemed to have notice of and consented to these provisions of our amended and restated certificate of incorporation. Any amendment to the foregoing provisions of our amended and restated certificate of incorporation requires the affirmative vote of at least two-thirds of the voting power of all shares of our common stock then outstanding.

Dissenters' rights of appraisal and payment

Under the Delaware General Corporation Law, with certain exceptions, our stockholders will have appraisal rights in connection with a merger or consolidation. Pursuant to the Delaware General Corporation Law, stockholders who properly request and perfect appraisal rights in connection with such merger or consolidation will have the right to receive payment of the fair value of their shares as determined by the Delaware Court of Chancery.

Stockholders' derivative actions

Under the Delaware General Corporation Law, any of our stockholders may bring an action in our name to procure a judgment in our favor, also known as a derivative action, provided that the stockholder bringing the action is a holder of our shares at the time of the transaction to which the action relates or such stockholder's stock thereafter devolved by operation of law and such suit is brought in the Court of Chancery in the State of Delaware.

Listing

Our Class A common stock will be listed on The NASDAQ Global Market under the trading symbol "BIOV".

Transfer agent and registrar

Upon the closing of this offering, the transfer agent and registrar for our Class A common stock will be _____.

Stockholders Agreement

Substantially concurrent with the closing of this offering, the Voting Group, which will hold Class A common stock or Class B common stock representing approximately _____% of the combined voting power of our Class A and Class B common stock, intends to enter into the Stockholders Agreement. Pursuant to the terms of the Stockholders Agreement, until such time as certain members of the Voting Group collectively control less than _____% of the combined voting power of our Class A and Class B common stock, or the Stockholders Agreement is otherwise terminated in accordance with its terms, the parties to the Stockholders Agreement will agree to vote their shares of Class A common stock and Class B common stock in favor of the election of the nominees of certain members of the Voting Group to our board of directors upon their nomination by the nominating and corporate governance committee of our board of directors.

Description of indebtedness

On October 10, 2014, we entered into a \$215 million credit agreement, or 2014 Credit Agreement, with JPMorgan Chase Bank, N.A., or JP Morgan, as well as a syndicate of other banks, financial institutions and other entities, or Lenders. The 2014 Credit Agreement is comprised of a \$115 million first lien term loan, a \$60 million second lien term loan and a \$40 million revolving facility, or 2014 revolver.

All obligations under the 2014 Credit Agreement are guaranteed by us and certain of our direct and indirect wholly-owned domestic subsidiaries. The obligations under the 2014 Credit Agreement are collateralized by substantially all of our assets. The first lien term loan and 2014 revolver mature on October 10, 2019 and the second lien term loan matures on April 10, 2020.

As of December 31, 2015, \$105.1 million was outstanding under the first lien term loan, net of the unamortized original issue discount of \$0.6 million and deferred financing costs of \$0.7 million. We may voluntarily prepay the first lien term loan without premium or penalty upon prior notice. Scheduled quarterly principal payments under the first lien term loan as a percentage of the aggregate initial principal borrowed are as follows, with the remaining outstanding principal due at maturity:

	Percentage	Quarterly payment
December 31, 2014 to September 30, 2015	1.25%	\$1.4 million
December 31, 2015 to September 30, 2016	2.50%	\$2.9 million
December 31, 2016 to September 30, 2017	3.75%	\$4.3 million
December 31, 2017 to September 30, 2018	3.75%	\$4.3 million
December 31, 2018 to maturity	5.00%	\$5.8 million

As of December 31, 2015, \$57.5 million was outstanding under the second lien term loan, net of the unamortized original issue discount of \$0.9 million and deferred financing costs of \$1.6 million. There are no scheduled principal payments under the second lien term loan until maturity. After October 10, 2017, we may voluntarily prepay the second lien term loan without premium or penalty upon prior notice. Prepayments made prior to October 10, 2017 will be subject to the prepayment premiums below:

Payment timing	Premium
In advance of October 10, 2015	3.00%
On October 10, 2015 but in advance of October 10, 2016	2.00%
On October 10, 2016 but in advance of October 10, 2017	1.00%

The first and second lien term loans permit at our election either Eurodollar or Alternate Base Rate, or ABR, term loans, which are due at maturity. ABR loans are due at maturity unless converted to a Eurodollar loan at our option. ABR term loans have interest due on the last day of each calendar quarter-end. Eurodollar loans are one, two, three or six-month loans and interest is due on the last day of each three-month period. In advance of the last day of a Eurodollar loan, we may choose to change such loan for a new loan type so long as it does not extend beyond maturity. The outstanding first and second lien term loans have been Eurodollar loans since inception. In addition, both first and second lien term loans have an interest due date concurrent with any repayment or prepayment.

The 2014 revolver is a five-year revolving credit facility of \$40 million which includes revolving and swingline loans as well as letters of credit.

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2014 revolver loans may be Eurodollar or ABR loans at our election, which are not due until maturity, and interest is payable at the same term as described in the previous paragraph for the first and second lien term loans. Swingline loans are available as ABR loans only and are due within five business days or maturity whichever is earlier. As of December 31, 2015, we had \$8.0 million of borrowings outstanding under the 2014 revolver, leaving \$32.0 million available. There were no letters of credit outstanding under the 2014 revolver as of December 31, 2015.

The base interest rate for all ABR loans is equal to the highest of (a) the JP Morgan Prime Rate, (b) the Federal Funds Effective Rate plus $\frac{1}{2}\%$ and (c) the Eurodollar Rate for a USD deposit with a maturity of one month plus 1.0% (rounded upward to the next $\frac{1}{16}$ of 1%).

The base interest rate for all Eurodollar loans is equal to the rate determined for such day in accordance with the following formula with the second lien term loans having a floor of 1.00%:

LIBOR

1—Eurocurrency Reserve Requirements

In addition to the base interest rate, all Eurodollar and ABR loans have an applicable margin for borrowings. The first lien term loan margins are tied to a leverage ratio which is defined as the ratio of (a) consolidated GAAP secured debt to (b) Consolidated EBITDA (as defined in the 2014 Credit Agreement) for four consecutive quarters at the end of each period. Pricing grids are used to determine the margin based on the type of loan and the leverage ratio. The second lien term loan margins are fixed at 10.00% for Eurodollar loans and 9.00% for ABR loans.

The first lien term loan margin is adjusted after the quarterly financial statements are delivered to the lenders. The table below set forth the leverage-based pricing grid for the first lien term loan:

Leverage ratio	Eurodollar	ABR
³ 4.00 to 1.00	3.00%	2.00%
³ 3.00 to 1.00 but < 4.00 to 1.00	2.75%	1.75%
³ 2.00 to 1.00 but < 3.00 to 1.00	2.50%	1.50%
< 2.00 to 1.00	2.25%	1.25%

Interest is calculated based on a 360-day year except for ABR loans where the base interest is the JP Morgan Prime Rate, in which case it is calculated based on a calendar-day year. As of December 31, 2015, the first and second lien term loan interest rates including the margin were 3.15% and 11.0%, respectively.

We may be required to make additional principal payments on the first and second lien term loans dependent upon the generation of certain cash flow events as defined in the 2014 Credit Agreement. These additional prepayments will be applied to the scheduled installments of principal in direct order of maturity of the ABR loans first and then the Eurodollar loans.

The 2014 revolver includes a commitment fee at 0.50% of the average daily amount of the available revolving commitment, excluding the amount of swingline loans outstanding. There were no swingline loans outstanding as of December 31, 2015. The fee is payable quarterly in arrears on the last day of the calendar quarters and maturity. On and after the first adjustment date, the rate will be determined based on the pricing grid below.

Leverage ratio	Commitment fee rate
³ 4.00 to 1.00	0.50%
³ 3.00 to 1.00 but < 4.00 to 1.00	0.45%
³ 2.00 to 1.00 but < 3.00 to 1.00	0.40%
< 2.00 to 1.00	0.35%

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Letters of credit are available in an amount not to exceed \$5 million. Fees are charged on all outstanding letters of credit at an annual rate equal to the margin in effect on Eurodollar revolving loans. A fronting fee of 0.125% per year on the undrawn and unexpired amount of each letter of credit is payable as well. The fees are payable quarterly in arrears on the last day of each calendar quarter after October 10, 2014.

The 2014 Credit Agreement requires that, on or before January 8, 2015, we enter into, and thereafter maintain for not less than three years, agreements so that at least 25% of the first lien term loans are subject to a fixed interest rate. During November 2014, we entered into three interest rate swap agreements totaling \$70 million with a term of three years.

As of December 31, 2015, the effective interest rate, including the applicable lending margin, on 65.81%, or \$70.0 million, of the outstanding principal amount of our first lien term loan was fixed at 4.19% through the use of the interest rate swaps. As of December 31, 2015, our effective weighted average interest rate on all outstanding debt, including the commitment fee and interest rate swaps, was 6.38%.

The 2014 Credit Agreement contains a number of covenants that, among other things, require the borrower to maintain a minimum fixed charge ratio and a maximum debt leverage ratio (as defined in the 2014 Credit Agreement) and restrict the ability of the borrower and its restricted subsidiaries to (subject to certain exceptions):

- incur additional indebtedness;
- create liens on assets;
- engage in mergers, consolidations or other fundamental changes (as defined in the 2014 Credit Agreement);
- dispose or sell assets;
- pay dividends and make other payments in respect of capital stock;
- make any capital expenditures;
- make investments, loans or advances;
- pay and modify the terms of certain indebtedness and organizational documents;
- engage in certain transactions with affiliates;
- enter into sale and leaseback transactions and swap agreements;
- change fiscal periods;
- enter into negative pledge clauses and clauses restricting subsidiary distributions; and
- enter new lines of business.

As of December 31, 2015, we were in compliance with the covenants under the 2014 Credit Agreement.

The 2014 Credit Agreement contains customary events of default including, but not limited to, failure to pay principal or interest, breaches of representations and warranties, violations of affirmative or negative covenants, cross-defaults to other indebtedness, a bankruptcy or similar proceeding being instituted by or against us, rendering of certain monetary judgments against us, impairments of loan documentation or security, changes of control, and defaults with respect to certain ERISA obligations.

Each Lender may provide an additional first lien, second lien and or revolving loan by executing and delivering notice specifying the terms, subject to certain conditions. The aggregate amount of all additional borrowings may not exceed \$25 million without the consent of the Lenders holding more than 50% of the total outstanding debt under the 2014 Credit Agreement.

Shares eligible for future sale

Immediately prior to this offering, there was no public market for our Class A common stock. Future sales of substantial amounts of Class A common stock in the public market (including shares of Class A common stock issuable upon redemption or exchange of LLC Interests), or the perception that such sales may occur, could adversely affect the market price of our Class A common stock. Although we have applied to have our Class A common stock listed on The NASDAQ Global Market, we cannot assure you that there will be an active public market for our Class A common stock.

Upon the closing of this offering, we will have outstanding an aggregate of _____ shares of Class A common stock, assuming the issuance of _____ shares of Class A common stock offered by us in this offering and the issuance of _____ shares of Class A common stock to the Former LLC Owners. In addition, upon the closing of this offering, the Phantom Plan will be terminated and Phantom Plan Participants will hold rights to receive _____ shares of Class A common stock upon settlement of their awards on the twelve month anniversary of the termination of the Phantom Plan (as more fully described above under “Executive compensation—Narrative to summary compensation table—Equity-based compensation—Phantom profits interest units”). In connection with the offering, each profits interest unit awarded under the MIP will be exchanged for LLC Interests which may then be exchanged for shares of Class A common stock (upon redemption or cancellation of the same number of their shares of our Class B common stock) or a cash payment (if mutually agreed). Of these shares, all shares sold in this offering will be freely tradable without restriction or further registration under the Securities Act, except for any shares purchased by our “affiliates,” as that term is defined in Rule 144 under the Securities Act, whose sales would be subject to the Rule 144 resale restrictions described below, other than the holding period requirement. The remaining outstanding shares of our common stock will be “restricted securities” as that term is defined under Rule 144 of the Securities Act.

Subject to the lock-up agreements described below and the provisions of Rules 144 and 701 under the Securities Act, these restricted securities (including shares of Class A common stock issuable upon redemption or exchange of LLC Interests) will be available for sale in the public market as follows:

- no shares will be available for sale until 180 days after the date of this prospectus, subject to certain limited exceptions provided for in the lock-up agreements; and
- _____ shares, plus any shares purchased by our affiliates in this offering, will be eligible for sale beginning more than 180 days after the date of this prospectus, subject, in the case of shares held by our affiliates, to the volume limitations under Rule 144.

Lock-Up agreements

In connection with this offering, our officers and directors, and certain of our stockholders, have each entered into a lock-up agreement with the underwriters of this offering that restricts the sale of shares of our common stock by those parties for a period of 180 days after the date of this prospectus without the prior written consent of J.P. Morgan Securities LLC. However, J.P. Morgan Securities LLC, on behalf of the underwriters, may, in its sole discretion, choose to release any or all of the shares of our common stock subject to these lock-up agreements at any time prior to the expiration of the lock-up period without notice. For more information, see “Underwriting.” Upon the expiration of the lock-up period, substantially all of the shares subject to such lock-up restrictions will become eligible for sale, subject to the limitations discussed above.

Rule 144

Affiliate resales of restricted securities

In general, beginning 90 days after the effective date of the registration statement of which this prospectus is a part, a person who is an affiliate of ours, or who was an affiliate at any time during the 90 days before a sale, who has beneficially owned shares of our Class A common stock for at least 180 days would be entitled to sell in “broker’s transactions” or certain “riskless principal transactions” or to market makers, a number of shares within any three-month period that does not exceed the greater of:

- 1% of the number of shares of our Class A common stock then outstanding, which will equal approximately _____ shares immediately after this offering; or
- the average weekly trading volume in our Class A common stock on The NASDAQ Global Market during the four calendar weeks preceding the filing of a notice on Form 144 with respect to such sale.

Affiliate resales under Rule 144 are also subject to the availability of current public information about us. In addition, if the number of shares being sold under Rule 144 by an affiliate during any three-month period exceeds 5,000 shares or has an aggregate sale price in excess of \$50,000, the seller must file a notice on Form 144 with the SEC and The NASDAQ Global Market concurrently with either the placing of a sale order with the broker or the execution directly with a market maker.

Non-affiliate resales of restricted securities

In general, beginning 90 days after the effective date of the registration statement of which this prospectus is a part, a person who is not an affiliate of ours at the time of sale, and has not been an affiliate at any time during the 90 days preceding a sale, and who has beneficially owned shares of our Class A common stock for at least six months but less than a year, is entitled to sell such shares subject only to the availability of current public information about us. If such person has held our shares for at least one year, such person can resell under Rule 144(b)(1) without regard to any Rule 144 restrictions, including the 90-day public company requirement and the current public information requirement.

Non-affiliate resales are not subject to the manner of sale, volume limitation or notice filing provisions of Rule 144.

Rule 701

In general, under Rule 701, any of an issuer’s employees, directors, officers, consultants or advisors who purchases shares from the issuer in connection with a compensatory stock or option plan or other written agreement before the effective date of a registration statement under the Securities Act is entitled to sell such shares 90 days after such effective date in reliance on Rule 144. An affiliate of the issuer can resell shares in reliance on Rule 144 without having to comply with the holding period requirement, and non-affiliates of the issuer can resell shares in reliance on Rule 144 without having to comply with the current public information and holding period requirements.

The SEC has indicated that Rule 701 will apply to typical stock options granted by an issuer before it becomes subject to the reporting requirements of the Exchange Act, along with the shares acquired upon exercise of such options, including exercises after an issuer becomes subject to the reporting requirements of the Exchange Act.

Equity plans

We intend to file one or more registration statements on Form S-8 under the Securities Act to register all shares of Class A common stock (i) issuable under our stock plans and (ii) issuable to the Phantom Plan Participants under the Phantom Plan. We expect to file the registration statement covering shares offered pursuant to our stock plans shortly after the date of this prospectus, permitting the resale of such shares by non-affiliates in the public market without restriction under the Securities Act and the sale by affiliates in the public market subject to compliance with the resale provisions of Rule 144. We expect that the initial registration statement on Form S-8 will cover _____ shares.

Registration rights

Upon the closing of this offering, the holders of _____ shares of Class A common stock (including the holders of LLC Interests redeemable or exchangeable for shares of Class A common stock) or their transferees will be entitled to various rights with respect to the registration of these shares under the Securities Act. Registration of these shares under the Securities Act would result in these shares becoming fully tradable without restriction under the Securities Act immediately upon the effectiveness of the registration. See “Certain relationships and related party transactions—Registration Rights Agreement” for additional information. Shares covered by a registration statement will be eligible for sale in the public market upon the expiration or release from the terms of the lock-up agreement.

Material U.S. federal income tax consequences to Non-U.S. Holders

The following discussion is a summary of the material U.S. federal income tax consequences to Non-U.S. Holders (as defined below) of the purchase, ownership and disposition of our Class A common stock issued pursuant to this offering, but does not purport to be a complete analysis of all potential tax effects. The effects of other U.S. federal tax laws, such as estate and gift tax laws, and any applicable state, local or non-U.S. tax laws are not discussed. This discussion is based on the U.S. Internal Revenue Code of 1986, as amended, or the Code, Treasury Regulations promulgated thereunder, judicial decisions, and published rulings and administrative pronouncements of the IRS, in each case in effect as of the date hereof. These authorities may change or be subject to differing interpretations. Any such change or differing interpretation may be applied retroactively in a manner that could adversely affect a Non-U.S. Holder of our Class A common stock. We have not sought and will not seek any rulings from the IRS regarding the matters discussed below. There can be no assurance the IRS or a court will not take a contrary position to that discussed below regarding the tax consequences of the purchase, ownership and disposition of our Class A common stock.

This discussion is limited to Non-U.S. Holders that hold our Class A common stock as a “capital asset” within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all U.S. federal income tax consequences relevant to a Non-U.S. Holder’s particular circumstances, including the impact of the Medicare contribution tax on net investment income. In addition, it does not address consequences relevant to Non-U.S. Holders subject to special rules, including, without limitation:

- U.S. expatriates and former citizens or long-term residents of the United States;
- persons subject to the alternative minimum tax;
- persons holding our Class A common stock as part of a hedge, straddle or other risk reduction strategy or as part of a conversion transaction or other integrated investment;
- banks, insurance companies, and other financial institutions;
- brokers, dealers or traders in securities;
- “controlled foreign corporations,” “passive foreign investment companies,” and corporations that accumulate earnings to avoid U.S. federal income tax;
- partnerships or other entities or arrangements treated as partnerships for U.S. federal income tax purposes (and investors therein);
- tax-exempt organizations or governmental organizations;
- persons deemed to sell our Class A common stock under the constructive sale provisions of the Code;
- persons who hold or receive our Class A common stock pursuant to the exercise of any employee stock option or otherwise as compensation; and
- tax-qualified retirement plans.

If an entity treated as a partnership for U.S. federal income tax purposes holds our Class A common stock, the tax treatment of a partner in the partnership will depend on the status of the partner, the activities of the partnership and certain determinations made at the partner level. Accordingly, partnerships holding our Class A common stock and the partners in such partnerships should consult their tax advisors regarding the U.S. federal income tax consequences to them.

THIS DISCUSSION IS FOR INFORMATIONAL PURPOSES ONLY AND IS NOT TAX ADVICE. INVESTORS SHOULD CONSULT THEIR TAX ADVISORS WITH RESPECT TO THE APPLICATION OF THE U.S. FEDERAL INCOME TAX

LAWS TO THEIR PARTICULAR SITUATIONS AS WELL AS ANY TAX CONSEQUENCES OF THE PURCHASE, OWNERSHIP AND DISPOSITION OF OUR CLASS A COMMON STOCK ARISING UNDER THE U.S. FEDERAL ESTATE OR GIFT TAX LAWS OR UNDER THE LAWS OF ANY STATE, LOCAL OR NON-U.S. TAXING JURISDICTION OR UNDER ANY APPLICABLE INCOME TAX TREATY.

Definition of a Non-U.S. Holder

For purposes of this discussion, a “Non-U.S. Holder” is any beneficial owner of our Class A common stock that is neither a “U.S. person” nor an entity treated as a partnership for U.S. federal income tax purposes. A U.S. person is any person that, for U.S. federal income tax purposes, is or is treated as any of the following:

- an individual who is a citizen or resident of the United States;
- a corporation created or organized under the laws of the United States, 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 that (1) is subject to the primary supervision of a U.S. court and the control of one or more “United States persons” (within the meaning of Section 7701(a)(30) of the Code), or (2) has a valid election in effect to be treated as a United States person for U.S. federal income tax purposes.

Distributions

As described in the section entitled “Dividend policy,” we do not anticipate declaring or paying dividends to holders of our Class A common stock in the foreseeable future. However, if we do make distributions of cash or property on our Class A common stock, such distributions 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. Amounts not treated as dividends for U.S. federal income tax purposes will constitute a return of capital and first be applied against and reduce a Non-U.S. Holder’s adjusted tax basis in its Class A common stock, but not below zero. Any excess will be treated as capital gain and will be treated as described below under “—Sale or other taxable disposition.”

Subject to the discussion below on effectively connected income, dividends paid to a Non-U.S. Holder of our Class A common stock will be subject to U.S. federal withholding tax at a rate of 30% of the gross amount of the dividends (or such lower rate specified by an applicable income tax treaty, provided the Non-U.S. Holder furnishes a valid IRS Form W-8BEN or W-8BEN-E (or other applicable documentation) certifying qualification for the lower treaty rate). A Non-U.S. Holder that does not timely furnish the required documentation, but that qualifies for a reduced treaty rate, may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS. Non-U.S. Holders should consult their tax advisors regarding their entitlement to benefits under any applicable income tax treaty.

If dividends paid to a Non-U.S. Holder are effectively connected with the Non-U.S. Holder’s conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, the Non-U.S. Holder maintains a permanent establishment in the United States to which such dividends are attributable), the Non-U.S. Holder will be exempt from the U.S. federal withholding tax described above. To claim the exemption, the Non-U.S. Holder must furnish to the applicable withholding agent a valid IRS Form W-8ECI, certifying that the dividends are effectively connected with the Non-U.S. Holder’s conduct of a trade or business within the United States.

Any such effectively connected dividends will be subject to U.S. federal income tax on a net income basis at the regular graduated rates. A Non-U.S. Holder that is a corporation also may be subject to a branch profits tax at a

rate of 30% (or such lower rate specified by an applicable income tax treaty) on such effectively connected dividends, as adjusted for certain items. Non-U.S. Holders should consult their tax advisors regarding any applicable tax treaties that may provide for different rules.

Sale or other taxable disposition

Subject to the discussion below under “Information reporting and backup withholding” and “Additional withholding tax on payments made to foreign accounts,” a Non-U.S. Holder will not be subject to U.S. federal income tax on any gain realized upon the sale or other taxable disposition of our Class A common stock unless:

- the gain is effectively connected with the Non-U.S. Holder’s conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, the Non-U.S. Holder maintains a permanent establishment in the United States to which such gain is attributable);
- the Non-U.S. Holder is a nonresident alien individual present in the United States for 183 days or more during the taxable year of the disposition and certain other requirements are met; or
- our Class A common stock constitutes a U.S. real property interest, or USRPI, by reason of our status as a U.S. real property holding corporation, or USRPHC, for U.S. federal income tax purposes.

Gain described in the first bullet point above generally will be subject to U.S. federal income tax on a net income basis at the regular graduated rates. A Non-U.S. Holder that is a corporation also may be subject to a branch profits tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on such effectively connected gain, as adjusted for certain items.

Gain described in the second bullet point above will be subject to U.S. federal income tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty), which may be offset by U.S. source capital losses of the Non-U.S. Holder (even though the individual is not considered a resident of the United States), provided the Non-U.S. Holder has timely filed U.S. federal income tax returns with respect to such losses.

With respect to the third bullet point above, we believe we currently are not, and do not anticipate becoming, a USRPHC. Because the determination of whether we are a USRPHC depends, however, on the fair market value of our USRPIs relative to the fair market value of our non-U.S. real property interests and our other business assets, there can be no assurance we currently are not a USRPHC or will not become one in the future. Even if we are or were to become a USRPHC, gain arising from the sale or other taxable disposition by a Non-U.S. Holder of our Class A common stock will not be subject to U.S. federal income tax if our Class A common stock is “regularly traded,” as defined by applicable Treasury Regulations, on an established securities market, and such Non-U.S. Holder owned, actually or constructively, 5% or less of our Class A common stock throughout the shorter of the five-year period ending on the date of the sale or other taxable disposition or the Non-U.S. Holder’s holding period.

Non-U.S. Holders should consult their tax advisors regarding potentially applicable income tax treaties that may provide for different rules.

Information reporting and backup withholding

Payments of dividends on our Class A common stock will not be subject to backup withholding, provided the applicable withholding agent does not have actual knowledge or reason to know the holder is a United States person and the holder either certifies its non-U.S. status, such as by furnishing a valid IRS Form W-8BEN, W-8BEN-E or W-8ECI, or otherwise establishes an exemption. However, information returns are required to be filed with the IRS in connection with any dividends on our Class A common stock paid to the Non-U.S. Holder,

regardless of whether any tax was actually withheld. In addition, proceeds of the sale or other taxable disposition of our Class A common stock within the United States or conducted through certain U.S.-related brokers generally will not be subject to backup withholding or information reporting, if the applicable withholding agent receives the certification described above and does not have actual knowledge or reason to know that such holder is a United States person, or the holder otherwise establishes an exemption. Proceeds of a disposition of our Class A common stock conducted through a non-U.S. office of a non-U.S. broker generally will not be subject to backup withholding or information reporting.

Copies of information returns that are filed with the IRS may also be made available under the provisions of an applicable treaty or agreement to the tax authorities of the country in which the Non-U.S. Holder resides or is established.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules may be allowed as a refund or a credit against a Non-U.S. Holder's U.S. federal income tax liability, provided the required information is timely furnished to the IRS.

Additional withholding tax on payments made to foreign accounts

Withholding taxes may be imposed under Sections 1471 to 1474 of the Code (such Sections commonly referred to as the Foreign Account Tax Compliance Act, or FATCA) on certain types of payments made to non-U.S. financial institutions and certain other non-U.S. entities. Specifically, a 30% withholding tax may be imposed on dividends on, or gross proceeds from the sale or other disposition of, our Class A common stock, in each case, paid to a "foreign financial institution" or a "non-financial foreign entity" (each as defined in the Code), unless (1) the foreign financial institution undertakes certain diligence and reporting obligations (including providing sufficient documentation evidencing its compliance (or deemed compliance) with FATCA), (2) the non-financial foreign entity either certifies it does not have any "substantial United States owners" (as defined in the Code) or furnishes identifying information regarding each substantial United States owner, or (3) the foreign financial institution or non-financial foreign entity otherwise qualifies for an exemption from these rules. If the payee is a foreign financial institution and is subject to the diligence and reporting requirements in (1) above, it must enter into an agreement with the U.S. Department of the Treasury requiring, among other things, that it undertake to identify accounts held by certain "specified United States persons" or "United States-owned foreign entities" (each as defined in the Code), annually report certain information about such accounts, and withhold 30% on certain payments to non-compliant foreign financial institutions and certain other account holders. Foreign financial institutions located in jurisdictions that have an intergovernmental agreement with the United States governing FATCA may be subject to different rules.

Under the applicable Treasury Regulations and administrative guidance, withholding under FATCA generally applies to payments of dividends on our Class A common stock, and will apply to payments of gross proceeds from the sale or other disposition of such stock on or after January 1, 2019. If a dividend payment is both subject to withholding under FATCA and subject to the withholding tax discussed above under "Distributions," the withholding under FATCA may be credited against and therefore reduce such other withholding tax.

Prospective investors should consult their tax advisors regarding the potential application of withholding under FATCA to their investment in our Class A common stock.

Underwriting

We are offering the shares of Class A common stock described in this prospectus through a number of underwriters. J.P. Morgan Securities LLC and Piper Jaffray & Co. are acting as joint book-running managers of the offering and J.P. Morgan Securities LLC is acting as representative of the underwriters. We have entered into an underwriting agreement with the underwriters. Subject to the terms and conditions of the underwriting agreement, we have agreed to sell to the underwriters, and each underwriter has severally agreed to purchase, at the public offering price less the underwriting discounts and commissions set forth on the cover page of this prospectus, the number of shares of Class A common stock listed next to its name in the following table:

Name	Number of shares
J.P. Morgan Securities LLC	
Piper Jaffray & Co.	
Stifel, Nicolaus & Company, Incorporated	
Leerink Partners LLC	
Total	

The underwriters are committed to purchase all the shares of Class A common stock offered by us if they purchase any shares. The underwriting agreement also provides that if an underwriter defaults, the purchase commitments of non-defaulting underwriters may also be increased or the offering may be terminated.

The underwriters propose to offer the shares of Class A common stock directly to the public at the initial public offering price set forth on the cover page of this prospectus and to certain dealers at that price less a concession not in excess of \$ per share. Any such dealers may resell shares to certain other brokers or dealers at a discount of up to \$ per share from the initial public offering price. After the initial public offering of the shares, the offering price and other selling terms may be changed by the underwriters. Sales of shares made outside of the United States may be made by affiliates of the underwriters.

The underwriters have an over-allotment option to buy up to additional shares of Class A common stock from us to cover sales of shares by the underwriters which exceed the number of shares specified in the table above. The underwriters have 30 days from the date of this prospectus to exercise this over-allotment option. If any shares are purchased with this over-allotment option, the underwriters will purchase shares in approximately the same proportion as shown in the table above. If any additional shares of Class A common stock are purchased, the underwriters will offer the additional shares on the same terms as those on which the shares are being offered.

The underwriting fee is equal to the public offering price per share of Class A common stock less the amount paid by the underwriters to us per share of Class A common stock. The underwriting fee is \$ per share. The following table shows the per share and total underwriting discounts and commissions to be paid to the underwriters assuming both no exercise and full exercise of the underwriters' over-allotment option to purchase additional shares.

	Without over-allotment exercise	With full over-allotment exercise
Per share	\$	\$
Total	\$	\$

We estimate that the total expenses of this offering, including registration, filing and listing fees, printing fees and legal and accounting expenses, but excluding the underwriting discounts and commissions, will be

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approximately \$. We have also agreed to reimburse the underwriters for certain of their expenses in an amount up to \$ as set forth in the underwriting agreement.

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

We have agreed that for a period of 180 days after the date of this prospectus we will not (i) offer, pledge, announce the intention to sell, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase or otherwise transfer or 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 any securities convertible into or exercisable or exchangeable for our Class A common stock, or publicly disclose the intention to make any offer, sale, pledge, disposition or filing, or (ii) enter into any swap or other arrangement that transfers all or a portion of the economic consequences associated with the ownership of any shares of Class A common stock or any such other securities (regardless of whether any of these transactions are to be settled by the delivery of shares of Class A common stock or such other securities, in cash or otherwise), in each case without the prior written consent of J.P. Morgan Securities LLC.

Our directors and executive officers, and certain of our significant shareholders have entered into lock-up agreements with the underwriters prior to the commencement of this offering pursuant to which each of these persons or entities, with limited exceptions, for a period of 180 days after the date of this prospectus, may not, without the prior written consent of J.P. Morgan Securities LLC, (1) offer, pledge, announce the intention to sell, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, any shares of our Class A common stock or any securities convertible into or exercisable or exchangeable for our Class A common stock (including, without limitation, Class A common stock or such other securities which may be deemed to be beneficially owned by such directors, executive officers, managers and members in accordance with the rules and regulations of the SEC and securities which may be issued upon exercise of a stock option or warrant) or (2) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of the Class A common stock or such other securities, whether any such transaction described in clause (1) or (2) above is to be settled by delivery of Class A common stock or such other securities, in cash or otherwise, or (3) make any demand for or exercise any right with respect to the registration of any shares of our Class A common stock or any security convertible into or exercisable or exchangeable for our Class A common stock.

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

We will apply to have our Class A common stock approved for listing on The NASDAQ Global Market under the symbol "BIOV".

In connection with this offering, the underwriters may engage in stabilizing transactions, which involves making bids for, purchasing and selling shares of Class A common stock in the open market for the purpose of preventing or retarding a decline in the market price of the Class A common stock while this offering is in progress. These stabilizing transactions may include making short sales of the Class A common stock, which involves the sale by the underwriters of a greater number of shares of Class A common stock than they are required to purchase in this offering, and purchasing shares of Class A common stock on the open market to cover positions created by short sales. Short sales may be "covered" shorts, which are short positions in an

amount not greater than the underwriters' over-allotment option referred to above, or may be "naked" shorts, which are short positions in excess of that amount. The underwriters may close out any covered short position either by exercising their over-allotment option, in whole or in part, or by purchasing shares in the open market. In making this determination, the underwriters will consider, among other things, the price of shares available for purchase in the open market compared to the price at which the underwriters may purchase shares through the over-allotment option. 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 Class A common stock in the open market that could adversely affect investors who purchase in this offering. To the extent that the underwriters create a naked short position, they will purchase shares in the open market to cover the position.

The underwriters have advised us that, pursuant to Regulation M of the Securities Act, they may also engage in other activities that stabilize, maintain or otherwise affect the price of the Class A common stock, including the imposition of penalty bids. This means that if the representatives of the underwriters purchase Class A common stock in the open market in stabilizing transactions or to cover short sales, the representatives can require the underwriters that sold those shares as part of this offering to repay the underwriting discounts and commissions received by them.

These activities may have the effect of raising or maintaining the market price of the Class A common stock or preventing or retarding a decline in the market price of the Class A common stock, and, as a result, the price of the Class A common stock may be higher than the price that otherwise might exist in the open market. If the underwriters commence these activities, they may discontinue them at any time. The underwriters may carry out these transactions on the NASDAQ, in the over-the-counter market or otherwise.

Prior to this offering, there has been no public market for our Class A common stock. The initial public offering price will be determined by negotiations between us and the representatives of the underwriters. In determining the initial public offering price, we and the representatives of the underwriters expect to consider a number of factors including:

- the information set forth in this prospectus and otherwise available to the representatives;
- our prospects and the history and prospects for the industry in which we compete;
- an assessment of our management;
- our prospects for future earnings;
- the general condition of the securities markets at the time of this offering;
- the recent market prices of, and demand for, publicly traded common stock of generally comparable companies; and
- other factors deemed relevant by the underwriters and us.

Neither we nor the underwriters can assure investors that an active trading market will develop for our common shares, or that the shares will trade in the public market at or above the initial public offering price.

Other than in the United States, no action has been taken by us or the underwriters that would permit a public offering of the securities offered by this prospectus in any jurisdiction where action for that purpose is required. The securities offered by this prospectus may not be offered or sold, directly or indirectly, nor may this prospectus or any other offering material or advertisements in connection with the offer and sale of any such securities be distributed or published in any jurisdiction, except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons into whose possession this prospectus comes are advised to inform themselves about and to observe any restrictions relating to the

offering and the distribution of this prospectus. This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any securities offered by this prospectus in any jurisdiction in which such an offer or a solicitation is unlawful.

Selling restrictions

United Kingdom

This document is only being distributed to and is only directed at (i) persons who are outside the United Kingdom or (ii) to investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the “Order”) or (iii) high net worth entities, and other persons to whom it may lawfully be communicated, falling with Article 49(2)(a) to (d) of the Order (all such persons together being referred to as “relevant persons”). The securities are only available to, and any invitation, offer or agreement to subscribe, purchase or otherwise acquire such securities will be engaged in only with, relevant persons. Any person who is not a relevant person should not act or rely on this document or any of its contents.

European economic area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a “Relevant Member State”), from and including the date on which the EU Prospectus Directive (the “EU Prospectus Directive”) was implemented in that Relevant Member State (the “Relevant Implementation Date”) an offer of securities described in this prospectus may not be made to the public in that Relevant Member State prior to the publication of a prospectus in relation to the shares which has been approved by the competent authority in that Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the competent authority in that Relevant Member State, all in accordance with the EU Prospectus Directive, except that, with effect from and including the Relevant Implementation Date, an offer of securities described in this prospectus may be made to the public in that Relevant Member State at any time:

- to any legal entity which is a qualified investor as defined under the EU Prospectus Directive;
- to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending Directive, 150 natural or legal persons (other than qualified investors as defined in the EU Prospectus Directive); or
- in any other circumstances falling within Article 3(2) of the EU Prospectus Directive, provided that no such offer of securities described in this prospectus shall result in a requirement for the publication by us of a prospectus pursuant to Article 3 of the EU Prospectus Directive.

For the purposes of this provision, the expression an “offer of securities to the public” in relation to any securities in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the securities to be offered so as to enable an investor to decide to purchase or subscribe for the securities, as the same may be varied in that Member State by any measure implementing the EU Prospectus Directive in that Member State. The expression “EU Prospectus Directive” means Directive 2003/71/EC (and any amendments thereto, including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member State) and includes any relevant implementing measure in each Relevant Member State, and the expression “2010 PD Amending Directive” means Directive 2010/73/EU.

Other relationships

Certain of the underwriters and their affiliates have provided in the past to us and our affiliates and may provide from time to time in the future certain commercial banking, financial advisory, investment banking and other services for us and such affiliates in the ordinary course of their business, for which they have received and may continue to receive customary fees and commissions. In addition, from time to time, certain of the underwriters and their affiliates may effect transactions for their own account or the account of customers, and hold on behalf of themselves or their customers, long or short positions in our debt or equity securities or loans, and may do so in the future.

An affiliate of J.P. Morgan Securities LLC served as an arranger and lender under our senior secured credit facility. Such affiliate of the representative of the underwriters receives customary fees and expenses in connection with its provision of these services.

Legal matters

The validity of the issuance of our Class A common stock offered in this prospectus will be passed upon for us by Latham & Watkins LLP, New York, New York. The validity of the issuance of our Class A common stock offered in this prospectus will be passed upon for the underwriters in connection with this offering by Simpson Thacher & Bartlett LLP, New York, New York.

Experts

The Bioventus LLC financial statements as of December 31, 2015 and 2014 and for each of the three years in the period ended December 31, 2015 included in this prospectus have been so included in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

The BioStructures, LLC financial statements as of December 31, 2014 and for the period ended December 31, 2014 included in this prospectus have been so included in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

Where you can find more information

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the shares of Class A common stock offered hereby. This prospectus, which constitutes a part of the registration statement, does not contain all of the information set forth in the registration statement or the exhibits and schedules filed therewith, certain portions of which are omitted as permitted by the rules and regulations of the SEC. For further information with respect to Bioventus Inc. and the shares of Class A common stock offered hereby, reference is made to the registration statement and the exhibits and schedules filed therewith. Statements contained in this prospectus regarding the contents of any contract or any other document that is filed as an exhibit to the registration statement are not necessarily complete, and each such statement is qualified in all respects by reference to the full text of such contract or other document filed as an exhibit to the registration statement. A copy of the registration statement and the exhibits and schedules filed therewith may be inspected without charge at the public reference room maintained by the SEC, located at 100 F Street N.E., Room 1580, Washington, D.C. 20549, and copies of all or any part of the registration statement may be obtained from such offices upon the payment of the fees prescribed by the SEC. Please call the SEC at 1-800- SEC-0330 for further information about the public reference room. The SEC also maintains a website that contains reports, proxy and information statements and other information regarding registrants that file electronically with the SEC. The address is www.sec.gov.

As a result of this offering, we will become subject to the information and reporting requirements of the Exchange Act and, in accordance with this law, will file periodic reports, proxy statements and other information with the SEC. These periodic reports, proxy statements and other information will be available for inspection and copying at the SEC's public reference room and the website of the SEC referred to above. We also maintain a website at www.bioventusglobal.com. The reference to our website address does not constitute incorporation by reference of the information contained on our website, and you should not consider the contents of our website in making an investment decision with respect to our common stock.

You may also request a copy of these filings, at no cost to you, by writing or telephoning us at the following address:

Bioventus Inc.
4721 Emperor Boulevard, Suite 100
Durham, NC 27703
Attention: Chief Financial Officer
(919) 474-6700

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Bioventus LLC

Years ended December 31, 2013, 2014 and 2015

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BioStructures LLC

Year ended December 31, 2014

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Report of independent registered public accounting firm

To Board of Managers and Members of
Bioventus LLC:

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of operations and comprehensive loss, of changes in members' equity and of cash flows present fairly, in all material respects, the financial position of Bioventus LLC and its subsidiaries at December 31, 2015 and 2014, and the results of their operations and their cash flows for each of the three years in the period ended December 31 2015, in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

/s/ PricewaterhouseCoopers LLP
Raleigh, North Carolina
April 19, 2016

Bioventus LLC

Consolidated statements of operations and comprehensive loss

Years ended December 31, 2013, 2014 and 2015

(Dollars in thousands, except per unit and per share data)

	2013	2014	2015
Net sales	\$232,375	\$242,893	\$253,650
Cost of sales (including depreciation and amortization of \$16,693, \$19,622 and \$22,474, respectively)	71,372	74,609	74,342
Gross profit	161,003	168,284	179,308
Selling, general and administrative expense	150,370	147,058	148,441
Research and development expenses	10,936	9,465	14,747
Change in fair value of contingent consideration	—	1,590	19,493
Restructuring costs	—	1,183	2,645
Depreciation and amortization	7,765	8,968	10,570
Operating income (loss)	(8,068)	20	(16,588)
Interest expense	11,459	11,969	14,229
Other (income) expense	713	(596)	1,154
Other expense, net	12,172	11,373	15,383
Loss before income taxes	(20,240)	(11,353)	(31,971)
Income tax expense	2,127	1,547	2,140
Net loss	(22,367)	(12,900)	(34,111)
Other comprehensive loss, net of tax			
Change in prior service cost and unrecognized loss for defined benefit plan adjustment	—	(75)	48
Change in foreign currency translation adjustments	(51)	163	(712)
Other comprehensive loss	(51)	88	(664)
Comprehensive loss	\$ (22,418)	\$ (12,812)	\$ (34,775)
Net loss per unit, basic and diluted (Note 14)	\$ (5.30)	\$ (3.39)	\$ (7.78)
Weighted average common units outstanding, basic and diluted	4,900	4,900	4,900
Unaudited pro forma net loss per share (Note 18):			
Net loss per share, basic and diluted			
Weighted average common shares, basic and diluted			

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

Bioventus LLC

Consolidated balance sheets

December 31, 2014 and 2015

(Dollars in thousands)

	2014	2015
Assets		
Current assets:		
Cash	\$ 15,774	\$ 4,950
Restricted cash	—	343
Accounts receivable, net	47,075	54,511
Inventory, net	26,674	35,178
Prepaid and other current assets	5,708	4,445
Total current assets	95,231	99,427
Property and equipment, net	10,428	9,602
Goodwill	49,953	58,694
Intangible assets, net	274,332	319,152
Other assets	298	393
Deferred tax asset	179	84
Total assets	\$ 430,421	\$ 487,352
Liabilities and Members' Equity		
Current liabilities:		
Accounts payable	\$ 5,383	\$ 8,368
Accrued liabilities	25,969	34,368
Note payable	—	23,546
Contingent consideration	7,266	7,270
License agreement obligation	5,662	—
Long-term debt	7,188	12,938
Capital lease obligations	688	1,200
Total current liabilities	52,156	87,690
Long-term debt, less current portion	162,297	149,607
Long-term revolver	—	8,000
Contingent consideration, less current portion	24,949	32,635
Capital lease obligations, less current portion	803	1,222
Other long-term liabilities	3,399	7,080
Deferred tax liability	9,328	8,780
Total liabilities	252,932	295,014
Commitments and contingencies (Note 13)		
Members' equity (preferred unit liquidation preference of \$127,649 and \$181,645 at December 31, 2014 and 2015, respectively)	233,970	284,828
Accumulated other comprehensive income (loss)	14	(650)
Accumulated deficit	(56,495)	(91,840)
Total members' equity	177,489	192,338
Total liabilities and members' equity	\$ 430,421	\$ 487,352

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

Bioventus LLC

Consolidated statements of changes in members' equity

Years ended December 31, 2013, 2014 and 2015

(Dollars in thousands)

	Members' equity	Accumulated Other comprehensive loss	Accumulated deficit	Total members' equity
Balance at December 31, 2012	\$ 232,523	\$ (23)	\$ (16,328)	\$ 216,172
Profits interest compensation	576	—	—	576
Distribution to members	—	—	(2,501)	(2,501)
Net loss	—	—	(22,367)	(22,367)
Translation adjustment	—	(51)	—	(51)
Balance at December 31, 2013	233,099	(74)	(41,196)	191,829
Profits interest compensation	871	—	—	871
Distribution to members	—	—	(2,399)	(2,399)
Net loss	—	—	(12,900)	(12,900)
Defined benefit plan adjustment	—	(75)	—	(75)
Translation adjustment	—	163	—	163
Balance at December 31, 2014	233,970	14	(56,495)	177,489
Capital contribution	50,000	—	—	50,000
Profits interest compensation	858	—	—	858
Distribution to members	—	—	(1,234)	(1,234)
Net loss	—	—	(34,111)	(34,111)
Defined benefit plan adjustment	—	48	—	48
Translation adjustment	—	(712)	—	(712)
Balance at December 31, 2015	\$ 284,828	\$ (650)	\$ (91,840)	\$ 192,338

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

Bioventus LLC

Consolidated statements of cash flows

Years ended December 31, 2013, 2014 and 2015

(Dollars in thousands)

	2013	2014	2015
Operating activities:			
Net loss	\$ (22,367)	\$ (12,900)	\$ (34,111)
Adjustments to reconcile net loss to net cash provided by operating activities:			
Depreciation and amortization	24,458	28,820	33,078
Change in fair value of contingent consideration	—	1,590	19,493
Provision for doubtful accounts	5,485	5,880	4,707
In-kind interest expense	11,281	3,885	—
Profits interest compensation	576	871	858
Management incentive plan and liability-classified awards compensation	—	1,484	2,467
Change in fair value of Equity Participation Rights unit	470	567	1,352
Deferred income taxes	(475)	(701)	(432)
Unrealized foreign currency transaction (gains) losses	288	(575)	1,284
Amortization of debt (premium) discount and capitalized loan fees, net	(562)	(1,806)	871
Changes in operating assets and liabilities, net of acquisitions:			
Accounts receivable	(11,094)	(217)	(11,266)
Inventories	(3,718)	10,649	(5,729)
Accounts payable and accrued expenses	(2,928)	3,043	5,182
Other current assets and liabilities	1,335	(3,152)	1,166
Payment of in-kind interest	—	(22,329)	—
Net cash provided by operating activities	2,749	15,109	18,920
Investing activities:			
Acquisition of business, net of cash acquired	—	(10,546)	(51,459)
Acquisition of intellectual property	—	(19,668)	(5,324)
Acquisition of distributor assets	(4,643)	—	—
Purchase of property and equipment	(6,356)	(1,162)	(2,118)
Settlement of foreign currency forward contract	—	—	(941)
Restricted cash	—	—	(343)
Net cash used in investing activities	(10,999)	(31,376)	(60,185)
Financing activities:			
Payment on note payable to related party	—	(160,000)	—
Proceeds from the issuance of long-term debt, net of issuance costs	—	170,505	—
Payments on long-term debt	—	(1,438)	(7,188)
Long-term debt modification costs	—	—	(718)
Payment of contingent consideration	—	(1,731)	(16,345)
Borrowing on the revolving line of credit	12,839	4,068	23,000
Payments on the revolving line of credit	(2,071)	(14,373)	(15,000)
Principal payments toward capital lease obligations	(1,466)	(1,277)	(1,487)
Capital contribution	—	—	50,000
Distribution to members	(2,501)	(2,399)	(1,016)
Net cash provided by (used in) financing activities	6,801	(6,645)	31,246
Effect of exchange rate changes on cash and cash equivalents	(514)	(1,428)	(805)
Net change in cash and cash equivalents	(1,963)	(24,340)	(10,824)
Cash and cash equivalents at the beginning of the period	42,077	40,114	15,774
Cash and cash equivalents at the end of the period	\$ 40,114	\$ 15,774	\$ 4,950
Supplemental disclosure of cash flow information			
Cash paid for income taxes	\$ 2,151	\$ 785	\$ 2,614
Cash paid for interest	\$ 197	\$ 31,901	\$ 15,630
Supplemental disclosure of noncash investing and financing activities			
Notes payable, contingent consideration and other accrued liabilities for business acquisitions	—	\$ 32,343	\$ 33,028
Liabilities assumed for intellectual property acquisition	\$ 25,738	—	—
Capital lease obligations for purchase of property and equipment	\$ 3,612	\$ 622	\$ 2,418
Accrued member distributions	\$ 0	\$ 0	\$ 218

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

1. Organization and basis of presentation of financial information (dollars in thousands)

The Company

Bioventus LLC, or Bioventus or the Company, is a limited liability company formed under the laws of the state of Delaware on November 23, 2011 and operates as a partnership. Bioventus is a global medical technology company, conducting business in various countries, primarily in North America and Europe, with nearly 650 employees. The Company is focused on developing and commercializing innovative and proprietary orthobiologic products for the treatment of patients suffering from a broad array of musculoskeletal conditions. The Company seeks to address the growing need for clinically effective, cost efficient and minimally invasive solutions that enhance the body's natural healing processes.

On November 23, 2011, Smith & Nephew plc, or S&N, filed a certificate of formation for the Company. On January 3, 2012, a series of agreements were executed with investment vehicles sponsored and managed by Essex Woodlands (Essex), a healthcare growth equity firm, in order to effect a spin-off of S&N's biologic and clinical therapies segment (the Business) into Bioventus.

On May 4, 2012, S&N sold certain assets related to the Business' worldwide operations to Essex and the assets were subsequently contributed by Essex to Bioventus in addition to \$20,000 cash in exchange for 5,100 preferred units, representing a 51% ownership interest. S&N then contributed certain other assets, primarily related to the Business' remaining worldwide operations, to Bioventus for 4,900 common units, representing a 49% ownership interest.

On May 4, 2012, the Company commenced operations in Durham, North Carolina, USA, which is its headquarters.

Principles of consolidation

The consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (US GAAP) and regulations of the United States Securities Exchange Commission (SEC). All significant intercompany accounts and transactions have been eliminated in consolidation.

Unaudited pro forma net loss per common unit

Unaudited pro forma basic and diluted net loss per unit reflects the conversion of all outstanding units of members' capital as if the conversion had occurred at the beginning of the period or the date of issuance, if later. The unaudited pro forma basic and diluted net loss per unit amounts do not give effect to the issuance of shares from the planned initial public offering, nor do they give effect to potential dilutive securities where the impact would be anti-dilutive.

Segment reporting

The Company identifies a business as an operating segment if: i) it engages in business activities from which it may earn revenues and incur expenses; ii) its operating results are regularly reviewed by the Chief Operating Decision Maker, or CODM, to make decisions about resources to be allocated to the segment and assess its performance; and iii) it has available discrete financial information. The Company's CODM is its Chief Executive Officer. The CODM reviews financial information at the operating segment level to allocate resources and to assess the operating results and financial performance for each operating segment.

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The Company's four reportable segments include: Active Healing Therapies (AHT) U.S. business (U.S. AHT), AHT International business (International AHT), Surgical business and bone morphogenetic protein research and development (BMP) business (discussed further in Note 16). AHT products are primarily sold to orthopedists, musculoskeletal and sports medicine physicians, and podiatrists, as well as to their patients. Surgical products are primarily sold to neurosurgeons and orthopedic spine surgeons. BMP is a research and development operation for future surgical bone growth products.

Use of estimates

The preparation of the consolidated financial statements in conformity with US GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, revenues and expenses during the period, as well as disclosures of contingent assets and liabilities at the date of the financial statements. Actual results may differ from these estimates under different assumptions or conditions.

2. Summary of significant accounting policies

Effect of foreign currency

The assets and liabilities of foreign subsidiaries are translated at rates of exchange in effect at the close of their month end. Equity accounts are translated at their historical rates. Revenues and expenses are translated at the exchange rate on the transaction date. Translation gains and losses are accumulated within accumulated other comprehensive loss as a separate component of members' equity.

Foreign currency transaction gains and losses are included in other expense (income) on the consolidated statements of operations and comprehensive loss and were \$713, \$(777) and \$213 for the years ended December 31, 2013, 2014 and 2015, respectively.

Other comprehensive loss

Comprehensive loss consists of two components: net loss and other comprehensive loss. Other comprehensive loss refers to gains and losses that under U.S. GAAP are recorded as an element of members' equity and are excluded from net loss. The Company's other comprehensive loss consists of a defined benefit plan adjustment and foreign currency translation adjustments from those subsidiaries not using the U.S. dollar as their functional currency.

Cash, cash equivalents and restricted cash

Cash and cash equivalents consist of highly liquid investments with an original maturity of three months or less at date of purchase. At December 31, 2014 and 2015 the Company did not have any cash equivalents. The Company's cash and cash equivalents consist principally of cash which is primarily held in financial institutions in the US and the Netherlands. The Company maintains cash balances in the United States in excess of the federally insured limits. The Company's restricted cash primarily consisted of amounts collateralizing standby letters of credit issued in favor of lease and other commitments.

Derivatives

The Company uses derivative instruments to manage exposures to interest rates and foreign currencies. Derivatives are recorded on the balance sheet at fair value at each balance sheet date. The Company has elected the fair value method of accounting and does not designate whether the derivative instrument is an

effective hedge of an asset, liability or firm commitment. Changes in the fair values of derivative instruments are recognized in the consolidated statements of operations and comprehensive loss. The Company has entered, and may in the future enter, into derivative contracts related to its debt and forecasted foreign currency transactions.

Fair value

The Company records certain assets and liabilities at fair value (discussed further in Note 8). Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants at the measurement date. A three-level fair value hierarchy that prioritizes the inputs used to measure fair value is described below. This hierarchy requires entities to maximize the use of observable inputs and minimize the use of unobservable inputs.

The three levels of inputs used to measure fair value are as follows:

- Level 1—Quoted prices in active markets for identical assets or liabilities;
- Level 2—Observable inputs other than quoted prices included within Level 1, such as quoted prices for similar assets and liabilities in active markets; quoted prices for identical or similar assets and liabilities in markets that are not active; or other inputs that are observable or can be corroborated by observable market data; and
- Level 3—Unobservable inputs that are supported by little or no market data. This includes certain pricing models, discounted cash flow methodologies and similar techniques that use significant unobservable inputs.

Revenue recognition

Sale of products

Product sales directly to the customer are primarily generated through the sale of external bone growth stimulators, osteoarthritis pain treatment products and surgical bone growth products. The Company presents revenue on a net basis, excluding taxes collected from customers and remitted to governmental authorities, as well as discounts, rebates, certain distribution fees and contractual allowances when recording revenue. The Company sells product directly to healthcare institutions, patients, distributors and dealers. Direct sales account for the majority of net sales. Revenue is recognized when title and risk of loss of the product passes to the purchaser, once all of the following conditions are satisfied: (1) there is persuasive evidence of an arrangement; (2) the collection of the fees is reasonably assured and (3) the arrangement consideration is fixed or determinable.

The Company recorded revenue from contractual payors at the contractual rate, net of contractual allowances, at the time of sale. For non-contracted payors, the Company records revenue at the estimated recoverable amount based on historical results and other available information.

For certain products, we offer chargebacks to distributors who supply their customers with our products. We have preexisting contracts with established rates with many of the wholesalers' customers who require the wholesalers to sell our product at their established rate. Accordingly we record an adjustment to revenue at the time of sale to estimate the future chargebacks, based on volume of purchases, inventory holdings and historical data of rebates requested for each wholesaler. All liabilities associated with chargebacks are reviewed regularly taking into consideration known market events and trends, as well as internal and external historical data for the industry and customer.

Revenue recognition for external bone growth stimulators

Revenue from third-party payors, such as insurance companies or managed care providers is recognized when the patient has accepted the product. Such revenue is recorded at the contracted rate at the time of sale, or an estimated price based on historical results and other available information for non-contracted payors. Revenue from a patient is negotiated with each individual and recognized when the patient has accepted the product.

Revenue recognition for osteoarthritis pain treatment products

Revenue from customers such as a healthcare provider, distribution center or specialty pharmacy is recognized when an order is received and the product is delivered to the customer location. Revenue is recognized at the contracted price. The Company offers retrospective discounts that are linked to the volume of purchases and may increase at negotiated thresholds within a contract buying period. The Company records an estimated discount and returns allowance based on historical, forecasted or negotiated results, the type of customer and the specifics of each arrangement.

Revenue recognition for surgical bone growth products

Revenue from customers such as a healthcare provider is recognized when a surgery is performed and the consigned inventory has been consumed. Revenue is recognized at the contracted price.

S&N distribution arrangement

During 2013 and 2014, the Company participated in a distribution arrangement with S&N, whereby S&N marketed and sold products outside the US on the Company's behalf. The Company recognized revenue under this distribution arrangement upon sale to third-party customers. Sales totaled \$3,176 and \$556 for the years ended December 31, 2013 and 2014, respectively. During the period from May 4, 2012 through September 2013, the Company entered into many of these markets directly and sales under this agreement ended December 31, 2014.

Shipping and handling

The Company classifies amounts billed for shipping and handling as a component of net sales. The related shipping and handling fees and costs as well as other distribution costs are included in cost of sales.

Accounts receivable and allowances

Accounts receivables are amounts due from customers and payors that are recorded at net realizable value for product sold in the ordinary course of business. The Company maintains a contractual allowance and an allowance for doubtful accounts.

The contractual allowance is offset against revenue for each sale to a contracted and non-contracted payor so that revenue and the resulting accounts receivable are recorded at the expected reimbursement amount at the time of the sale. When evaluating the adequacy of the contractual allowance, the Company analyzes contractual pricing with third party payors as well as historical results with contractual and non-contractual payors. The difference between actual contract adjustments and the estimates recorded have not been material.

The allowance for doubtful accounts is based on the assessment of the collectability of specific customer accounts and the aging of the accounts receivable. When evaluating the adequacy of this allowance, the Company analyzes accounts receivable, historical bad debts, customer concentrations, customer solvency, current economic and geographic trends, and changes in customer payment terms and practices. Credit is

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granted to costumers in the normal course of business, generally without collateral. Charges to the allowance for doubtful accounts are recorded in selling, general and administrative expense (SG&A) in the consolidated statements of operations and comprehensive loss. The Company's reserve levels have generally been sufficient to cover credit losses.

Inventory

The Company values its inventory at the lower of cost or market and adjusts for the value of inventory that is estimated to be excess, obsolete or otherwise unmarketable. Cost is determined using the first-in, first-out (FIFO) method. The Company records allowances for excess and obsolete inventory based on historical and estimated future demand and market conditions.

Business combinations

Accounting for acquisitions requires the Company to recognize separately from goodwill the assets acquired and the liabilities assumed at their acquisition date fair values. Goodwill as of the acquisition date is measured as the excess of consideration transferred over the net of the acquisition date fair values of the assets acquired and the liabilities assumed. While best estimates and assumptions are used to accurately value assets acquired and liabilities assumed at the acquisition date, as well as contingent consideration where applicable, estimates are inherently uncertain and subject to refinement. During the measurement period, which may be up to one year from the acquisition date, the Company may record adjustments to the assets acquired and liabilities assumed with a corresponding offset to goodwill. Upon the conclusion of the measurement period or final determination of the values of assets acquired or liabilities assumed, whichever comes first, any subsequent adjustments are recorded to our consolidated statements of operations and comprehensive loss. Subsequent changes in the estimated fair value of contingent consideration are recognized in earnings in the period of change.

Long-lived assets

Property and equipment are stated at cost and are depreciated using the straight-line method over the shorter of the asset's estimated useful life, or the lease term if related to leased property, as follows (in years):

Computer software and hardware	3-5
Leasehold improvements	5.5-7.5
Machinery and equipment	5-7
Furniture and fixtures	4-7

Finite-lived identifiable intangible assets are amortized using the straight-line method over their estimated remaining useful lives as follows (in years):

	Weighted Average Useful Life
Intellectual property	17.2
Distribution rights	13.5
Customer relationships	8.9
Developed technology	1.8
Non-compete agreements	3.6

The Company evaluates goodwill for impairment annually or more frequently if events or changes in circumstances indicate that goodwill might be impaired. The Company reviews goodwill for impairment by applying a quantitative impairment analysis using the two step method. Under the first step, the fair value of the reporting unit is compared with its carrying value (including goodwill). If the fair value of the reporting unit exceeds its carrying value, goodwill is not considered impaired and no additional analysis is performed. If the fair value of the reporting unit is less than its carrying value, the Company will recognize the amount of the impairment loss for any excess carrying amount of the reporting unit's goodwill over the implied fair value of that goodwill. The implied fair value of goodwill is determined by allocating the fair value of the reporting unit in a manner similar to a purchase price allocation, and the residual fair value after this allocation is the implied fair value of the reporting unit goodwill.

In the fourth quarter of 2014, as a result of the OsteoAmp acquisition, the Company changed from a geographic operating segment and reporting unit basis to a product basis resulting in three operating segments, U.S. AHT, International AHT & Surgical. Goodwill impairment was reassessed resulting in no impairment. The Company also performed its annual impairment test on October 31st. On December 31, 2015 the Company began presenting information in four operating segments to the CODM and an updated impairment test was performed. A portion of U.S. AHT goodwill was reassigned to the fourth reporting unit, BMP, based on relative fair value. There were no impairment charges for the years ended December 31, 2013, 2014 and 2015.

The Company capitalizes costs incurred from third-party vendors for software design, configuration, coding and testing and amortizes these costs on a straight-line basis over the estimated useful life of the product, not to exceed three years. The Company does not capitalize costs that are precluded from capitalization in authoritative guidance, such as preliminary project phase costs, planning, oversight, process re-engineering costs, training costs or data conversion costs. Capitalized software costs totaled \$9,715 and \$10,981 at December 31, 2014 and 2015, respectively. The related accumulated amortization totaled \$3,868 and \$7,068 as of December 31, 2014 and 2015, respectively.

The carrying values of property, equipment, intangible as well as other long-lived and indefinite lived assets are reviewed for recoverability if the facts and circumstances suggest that a potential impairment may have occurred. If this review indicates that carrying values may not be recoverable, as determined based on undiscounted cash flow projections, the Company will perform an assessment to determine if an impairment charge is required to reduce carrying values to estimated fair value. There were no events, facts or circumstances for the years ended December 31, 2013, 2014 and 2015 that resulted in any impairment charges to the Company's property, equipment, intangible or other long-lived assets.

Acquired in-process research and development

The fair value of acquired in-process research and development, or IPR&D, projects acquired in a business combination are capitalized and accounted for as indefinite-lived intangible assets. Once the development is completed and the product is available for sale, the asset is transferred to developed technology and amortized over its remaining estimated useful life.

The initial costs of rights to IPR&D projects obtained in an asset acquisition are expensed unless the project has an alternative future use. During June 2013, the Company entered into a license agreement for \$7,000 granting the Company a research license for certain compounds as well as related rights and options. If the Company reaches certain development milestones or exercises certain other options, the Company will be subject to cash payments upon the achievement of certain development milestones and royalties ranging from mid-single digit to low double digit percentages of net sales. The transaction was accounted for as an asset acquisition and the 2013 payment is included in research and development expense (R&D) on the consolidated statement of operations and comprehensive loss.

Concentration of risk

The Company provides credit, in the normal course of business, to its customers. The Company does not require collateral or other securities to support customer receivables. Credit losses are provided for through allowances and have historically been materially within management's estimates.

Certain suppliers provide the Company with product that results in a significant percentage of total sales for the years ended December 31 as follows:

	2013	2014	2015
Supplier A	37%	33%	32%
Supplier B	9%	9%	7%
Supplier C	0%	2%	9%

Two of the Company's products make up 89%, 87% and 83% of sales for the years ended December 31, 2013, 2014 and 2015.

Restructuring costs

The Company has restructured portions of its operations and future restructuring activities are possible. Identifying and calculating the cost to exit these operations requires certain assumptions to be made, the most significant of which are anticipated future liabilities. Although estimates have been reasonably accurate in the past, significant judgment is required, and these estimates and assumptions may change as additional information becomes available and facts or circumstances change. Restructuring costs are recorded at estimated fair value. Key assumptions in determining the restructuring costs include the net realizable value of inventory as well as negotiated terms and payments to terminate certain contractual obligations.

Profits interest compensation

The Company measures profits interest compensation cost at the grant date based on the fair value of the award and recognizes this cost as compensation expense over the required or estimated service period for awards expected to vest. Certain awards are liability-classified, which require they be remeasured at each reporting date. Compensation expense is included in SG&A and R&D on the consolidated statement of operations and comprehensive loss based upon the classification of the employees who were granted the awards.

The Company uses the Monte Carlo option model to allocate the fair value to the granted profits interest awards and other equity instruments. Expected stock price volatility is based on an average of several peer public companies due to the Company's limited operating history. The risk-free interest rate is based on a treasury instrument whose term is consistent with the expected life of the award. The dividend yield percentage is zero because the Company neither currently pays dividends nor intends to do so during the expected term.

The expected term of awards represents the average time the awards are expected to be outstanding. The expected term is based on the mid-point between the vesting date and the contractual term.

Advertising costs

Advertising costs include costs incurred to promote the Company's business and are expensed as incurred. Advertising costs were \$1,852, \$1,791 and \$1,543 for the years ended December 31, 2013, 2014 and 2015, respectively.

Research and development

R&D consists primarily of employee compensation and related expenses and contract research organization services. Internal R&D costs are expensed as incurred. R&D costs incurred by third parties are expensed as the contracted work is performed.

Net loss per unit

Basic loss per common unit is determined by dividing the net loss allocable to common unit holders by the weighted average number of common units outstanding during the periods presented. Diluted loss per common unit is computed by dividing the net loss allocable to common unit holders on an "if converted" basis by the weighted average number of actual common units outstanding and, when dilutive, the unit equivalents that would arise from the assumed conversion of convertible instruments.

Income taxes

Bioventus is treated as a partnership for U.S. tax purposes. Accordingly, the profits and losses are passed through to the members and included in their income tax returns. The Company is required to make tax distributions to its members in an amount equal to 40% of the members' taxable income attributable to their ownership. The tax rate applied for purposes of this distribution may be changed only by approval of the Board of Managers.

Certain wholly-owned subsidiaries of Bioventus are taxable entities for U.S. or foreign tax purposes and file tax returns in their local jurisdictions. Income tax expense includes U.S. federal, state and international income taxes. Certain items of income and expense are not reported in income tax returns and financial statements in the same year. The income tax effects of these differences are reported as deferred income taxes. Valuation allowances are provided to reduce the related deferred tax assets to an amount which will, more likely than not, be realized. Interest and penalties related to unrecognized tax benefits are recognized as a component of income tax expense.

The Company recognizes a tax benefit from any uncertain tax positions only if they are more likely than not to be sustained upon examination based on the technical merits of the position. The amount of the accrual for which an exposure exists is measured as the largest amount of benefit determined on a cumulative probability basis that the Company believes is more likely than not to be realized upon ultimate settlement of the position. Components of the reserve, if relevant, are classified as a current liability in the consolidated balance sheet based on when the Company expects each of the items to be settled.

Subsequent events

The Company has considered the effects of subsequent events through April 19, 2016, the date the Company's consolidated financial statements were issued.

Recent accounting pronouncements

In May 2014, the U.S. Financial Accounting Standards Board (FASB) issued guidance that provides a comprehensive new revenue recognition model that requires a company to recognize revenue to depict the transfer of goods or services to a customer at an amount that reflects the consideration it expects to receive in exchange for those goods or services. The guidance also requires additional disclosure about the nature, amount, timing and uncertainty of revenue and cash flows arising from customer contracts. This guidance is effective for annual and interim periods beginning after December 15, 2017. Early adoption is permitted for annual reporting periods beginning after December 15, 2016. The Company is currently evaluating the impact of this new standard on its consolidated financial statements, the date of adoption, and the transition approach to implement the new guidance.

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In February 2015, the FASB issued guidance which changes the analysis in determining whether an entity is considered a variable interest entity (VIE) and the identification of the primary beneficiary of the VIE to determine whether the VIE should be included in an entity's consolidated financial statements. The Company will adopt the new accounting guidance on January 1, 2016, as required. The Company does not expect this guidance to have a material effect on the Company's consolidated financial statements.

In April 2015, the FASB issued guidance that requires debt issuance costs related to a recognized debt liability to be presented in the consolidated balance sheet as a direct deduction from the debt liability rather than as an asset. In August 2015, the FASB issued updated guidance related to debt issuance costs to include SEC guidance regarding line-of-credit arrangements. The SEC staff would not object to deferring and presenting debt issuance costs as an asset for line of credit arrangement regardless of whether there is an outstanding balance. This guidance is effective for annual and interim periods beginning after December 15, 2015. The Company adopted the new accounting guidance early on December 31, 2015 resulting in a reclassification of \$2,196 and \$1,760 in other assets to a reduction of the long-term debt balance at December 31, 2014 and 2015, respectively.

In September 2015, the FASB issued guidance that eliminated the requirement that an acquirer in a business combination account for the measurement-period adjustments retrospectively. The acquirer will recognize the measurement-period adjustment during the period in which the adjustment is determined. The Company adopted the new accounting guidance early on January 1, 2015 with no material effect on the Company's consolidated financial statements.

In November 2015, the FASB issued guidance that requires companies to classify all deferred tax assets and liabilities as noncurrent on the consolidated balance sheet. The Company adopted the new accounting guidance early on December 31, 2015 resulting in a reclassification of \$276 and \$251 in current deferred tax liabilities to long term at December 31, 2014 and 2015, respectively.

In February 2016, the FASB issued guidance that requires lessees to recognize the rights and obligations resulting from leases as assets and liabilities. It also modifies the classification criteria and the accounting for sales-type and direct financing leases for the lessor. This guidance is effective for annual and interim periods beginning after December 15, 2018. Early adoption is permitted and must be adopted using a modified retrospective transition. The Company is currently evaluating the impact of this new standard on its consolidated financial statements and the date of adoption to implement the new guidance.

3. Balance sheet information

Accounts receivable, net

Accounts receivable, net of allowances, consisted of the following as of December 31:

	2014	2015
Accounts receivable	\$ 74,366	\$ 87,227
Less:		
Contractual allowances	(19,118)	(24,114)
Allowances for doubtful accounts	(8,671)	(8,602)
	46,577	54,511
Receivables from related parties	498	—
	\$ 47,075	\$ 54,511

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Changes in the allowances for doubtful accounts were as follows for the years ended December 31:

	2013	2014	2015
Balance, beginning of period	\$(6,430)	\$(8,634)	\$(8,671)
Provision for losses	(5,485)	(5,880)	(4,707)
Write-offs, net of recoveries	3,281	5,843	4,776
	\$(8,634)	\$(8,671)	\$(8,602)

Inventory, net

Inventory consisted of the following as of December 31:

	2014	2015
Raw materials and supplies	\$ 5,266	\$ 8,433
Finished goods	24,006	27,861
Gross	29,272	36,294
Excess and obsolete reserves	(2,598)	(1,116)
	\$26,674	\$35,178

Changes in excess and obsolete reserves for inventory were as follows for the years ended December 31:

	2013	2014	2015
Balance, beginning of period	\$(1,243)	\$(1,088)	\$(2,598)
Provision for losses	(303)	(2,364)	(1,210)
Write-offs, net of recoveries	458	854	2,692
	\$(1,088)	\$(2,598)	\$(1,116)

Property and equipment, net

Property and equipment consisted of the following as of December 31:

	2014	2015
Computer equipment and software	\$14,640	\$ 16,375
Leasehold improvements	2,349	2,583
Furniture and fixtures	925	1,173
Machinery and equipment	914	914
Assets not yet placed in service	499	2,730
	19,327	23,775
Less accumulated depreciation	(8,899)	(14,173)
Property and equipment, net	\$10,428	\$ 9,602

Depreciation expense was \$3,541, \$5,064 and \$5,321 for the years ended December 31, 2013, 2014 and 2015, respectively.

Goodwill and intangible assets, net

The following is a summary of goodwill by segment:

	US AHT	International AHT	Surgical	BMP	Consolidated
Balance at December 31, 2013	\$48,339	\$ —	\$ —	\$ —	\$ 48,339
OsteoAMP acquisition	—	—	1,614	—	1,614
Allocation to new segment	(8,760)	8,760	—	—	—
Balance at December 31, 2014	39,579	8,760	1,614	—	49,953
OsteoAMP acquisition measurement period adjustment	—	—	(376)	—	(376)
BioStructures acquisition	—	—	9,117	—	9,117
Allocation to new segment	(8,894)	—	—	8,894	—
Balance at December 31, 2015	\$30,685	\$ 8,760	\$ 10,355	\$ 8,894	\$ 58,694

There were no changes to goodwill during the year ended December 31, 2013. During 2015, goodwill was adjusted primarily for the reduction in working capital related to inventory and prepaid assets.

Intangible assets consisted of the following as of December 31:

	2014	2015
Intellectual property	\$213,438	\$259,238
Distribution rights	60,600	42,700
Customer relationships	53,200	57,700
IPR&D	4,000	27,000
Developed technology	2,800	2,800
Other intangibles	424	474
Total carrying amount	334,462	389,912
Less accumulated amortization:		
Intellectual property	(23,460)	(36,377)
Distribution rights	(22,072)	(11,598)
Customer relationships	(13,306)	(19,887)
Developed technology	(1,273)	(2,800)
Other intangibles	(19)	(98)
Total accumulated amortization	(60,130)	(70,760)
Intangible assets, net	\$274,332	\$319,152

Amortization expense related to intangible assets was \$21,087, \$25,152 and \$28,529 for the years ended December 31, 2013, 2014 and 2015 of which \$6,505, \$7,983 and \$8,565 are included in ending inventory at December 31, 2013, 2014 and 2015, respectively. Estimated amortization expense for the years ended December 31, 2016 through 2020 is expected to be \$27,597, \$27,150, \$25,310, \$24,022 and \$23,873, respectively.

Accrued liabilities

Accrued liabilities consisted of the following at December 31:

	2014	2015
Bonus and commission	\$11,558	\$10,161
Compensation and benefits	4,452	4,709
BioStructure second close payment	—	4,965
Product costs	966	3,063
Income and other taxes	1,313	2,656
Accounting and legal fees	2,032	2,602
Amounts due to managed care organizations	1,698	1,438
Research, development and regulatory	834	1,309
Other liabilities	3,116	3,465
	\$25,969	\$34,368

4. Business combination

OsteoAMP acquisition

On October 3, 2014, in order to enter the surgical orthobiologics market, the Company purchased the OsteoAMP assets of the biologic growth factor technology business from a California biologics company (the OsteoAMP Seller). The total purchase price was \$42,890. The purchase price consisted of contingent consideration of \$32,344 and cash of \$10,546.

The Company accounted for the OsteoAMP purchase using the acquisition method of accounting whereby the total purchase price was preliminarily allocated to tangible and intangible assets acquired and liabilities assumed based on respective fair values. The following table summarizes the preliminary and final fair values of the assets acquired and liabilities assumed at the acquisition date:

	Preliminary	Measurement period adjustments	Final
Fair value of consideration	\$ 42,890	\$ —	\$42,890
Assets acquired:			
Inventory	2,509	234	2,743
Prepaid and other assets	—	142	142
Intangible assets	39,400	—	39,400
Total assets acquired	41,909	376	42,285
Liabilities assumed:			
Accounts payable	633	—	633
Net identifiable assets acquired	41,276	376	41,652
Resulting goodwill	\$ 1,614	\$ (376)	\$ 1,238

As of December 31, 2014, the purchase price allocation for the OsteoAMP acquisition was preliminary and subject to completion. Adjustments to the current fair value estimates in the above table occurred as the process conducted for various valuations and assessments was finalized in September 2015, including tax assets, liabilities and

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other attributes. Goodwill is calculated as the excess of the consideration transferred over the net assets recognized and nearly 100% represents the estimated future economic benefits arising from other assets acquired that could not be individually identified and separately recognized.

The factors contributing to the recognition of goodwill are based on several strategic and synergistic benefits that are expected to be realized from the OsteoAMP acquisition including the expansion into the surgical market. The goodwill is tax deductible and was allocated to the Surgical reporting unit for purposes of the evaluation for any future goodwill impairment.

The contingent consideration consists of up to \$12,000 for various cash earn-out payments upon the achievement of certain net sales targets through December 31, 2019, a royalty on certain future net sales of OsteoAMP beginning January 1, 2019 through December 31, 2023 and a supply agreement with the OsteoAMP Seller ending in October 2018. Under the terms of the supply agreement, the Company will purchase the OsteoAMP product from the OsteoAMP Seller at prices above the market rate. Contingent consideration payments may be up to \$70,117. There was \$1,731 and \$16,345 in contingent consideration payments for the year ended December 31, 2014 and 2015, respectively.

The intangible assets purchased consisted of the following:

	Fair value	Useful life (in years)
Intellectual property	\$ 30,300	10
Customer relationships	4,800	3
IPR&D	4,000	N/A
Non-compete agreement	300	4
Total intangible assets acquired	\$ 39,400	

The preliminary fair value of the OsteoAMP intellectual property and IPR&D was determined using the income approach through an excess earnings analysis, with projected earnings discounted at a rate of 25.0% and 27.0%, respectively. The IPR&D consists of certain R&D progress toward the next-generation of OsteoAMP. The preliminary fair value of the customer relationship asset was determined using the income approach through an incremental cash flow analysis utilizing the with-and-without or lost profits method, with projected cash flow discounted at a rate of 24.0%. The determination of the useful lives was based upon consideration of market participant assumptions and transaction specific factors.

The results of OsteoAMP operations of the business have been included in the accompanying consolidated financial statements since the October 3, 2014 acquisition date. OsteoAMP revenue and earnings included in operations are as follows for the years ended December 31:

	2014	2015
Net sales	\$ 4,150	\$ 24,034
Loss before income taxes	\$(2,092)	\$(17,709)

Revenue and earnings including the OsteoAMP operations as if it was acquired at January 1, 2013 are as follows for the years ended December 31:

	2013	2014
	(unaudited)	(unaudited)
Net sales	\$241,780	\$254,579
Loss before income taxes	\$ (19,351)	\$ (9,225)

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OsteoAMP acquisition-related costs for the year ended December 31, 2014 were \$178 and are recorded in SG&A in the consolidated statement of operations and comprehensive loss.

BioStructures acquisition

On November 24, 2015, in order to increase its presence in the surgical orthobiologics market, the Company purchased BioStructures, LLC for cash of \$48,397, a \$23,528 note payable to the former BioStructures owners, contingent consideration of \$4,542 and a second closing payment of \$4,960. Contingent consideration is made up of future earn-out payments contingent upon the achievement of certain research and development milestones through November 24, 2017. BioStructures, LLC is a limited liability company formed under the laws of the state of California on August 22, 2007 and operates as a partnership. The Company accounted for the BioStructures purchase using the acquisition method of accounting whereby the total purchase price was preliminarily allocated to tangible and intangible assets acquired and liabilities assumed based on respective fair values. The following table summarizes the preliminary fair values of the assets acquired and liabilities assumed at the acquisition date:

Fair value of consideration	\$ 81,427
Assets acquired:	
Cash	778
Accounts receivable	1,677
Inventory	1,924
Property and equipment	44
Intangible assets	73,350
Total assets acquired	77,773
Liabilities assumed:	
Accounts payable	1,077
Accrued liabilities	4,386
Net identifiable assets acquired	72,310
Resulting goodwill	\$ 9,117

As of December 31, 2015, the purchase price allocation for the BioStructures acquisition was preliminary and subject to completion. Adjustments to the current fair value estimates in the above table may occur as the process conducted for various valuations and assessments is finalized, including tax liabilities and other working capital accounts. Goodwill is calculated as the excess of the consideration transferred over the net assets recognized and nearly 100% represents the estimated future economic benefits arising from other assets acquired that could not be individually identified and separately recognized.

The factors contributing to the recognition of goodwill are based on several strategic and synergistic benefits that are expected to be realized from the BioStructures acquisition including the expansion into the surgical market. The goodwill is tax deductible and was allocated to the Surgical reporting unit for purposes of the evaluation for any future goodwill impairment.

Contingent consideration is made up of future earn-out payments contingent upon the achievement of certain R&D milestones to be achieved by the former BioStructures owners. The contingent consideration could be lowered and is not to exceed \$5,000.

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The intangible assets purchased consisted of the following:

	Fair value	Weighted average Useful life (in years)
Intellectual property	\$ 45,800	13.4
IPR&D	23,000	N/A
Distributor relationships	4,500	2.7
Trade name	50	1
Total intangible assets acquired	\$ 73,350	

The preliminary fair value of the BioStructures intellectual property and IPR&D was determined using the income approach through an excess earnings analysis, with projected earnings discounted at a rate of 17.0% and 18.0%, respectively. The IPR&D consists of certain R&D progress toward the next-generation of Silhouette and SignaFuse. The preliminary fair value of the distributor relationship asset was determined using the income approach through an incremental cash flow analysis utilizing the with-and-without or lost profits method for consignment distributors and the cost method for stocking distributors, with projected cash flow discounted at a rate of 17.0%. The determination of the useful lives was based upon consideration of market participant assumptions and transaction specific factors.

The results of operations of the business have been included in the accompanying consolidated financial statements since the November 24, 2015 acquisition date. BioStructures revenue and earnings included in operations are as follows for the year ended December 31:

	2015
Net sales	\$1,755
Income before income taxes	\$ 410

Revenue and earnings including the BioStructures operations as if it was acquired at January 1, 2014 are as follows for the years ended December 31:

	2014	2015
	(unaudited)	(unaudited)
Net sales	\$255,071	\$265,824
Loss before income taxes	\$ (7,905)	\$ (28,922)

BioStructures acquisition-related costs for the year ended December 31, 2015 were \$332 and are recorded in SG&A in the consolidated statement of operations and comprehensive loss.

5. Debt

Related party note

On May 4, 2012, in conjunction with the business formation, the Company entered into the note payable to S&N (Related Party Note) at a premium of \$3,188, due May 4, 2017. Premiums of \$637 and \$2,126 for the years ended December 31, 2013 and December 31, 2014 were amortized and reduced interest expense in the consolidated statement of operations and comprehensive loss. Interest was calculated based on a calendar day year and accrued annually in arrears on May 4 of each year (Interest Payment Date). The interest rate was equal to LIBOR plus 5% per year provided however, that LIBOR was not lower than 1.75% or higher than 2.5%. As of December 31, 2013, the interest rate on the Related Party Note was 6.75%. Until and including the Interest Payment Date occurring on May 4, 2014, the interest was paid-in-kind and, on the applicable Interest Payment

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Date, was added to the outstanding principal amount, from which succeeding interest was calculated. The principal of \$160,000, in-kind interest of \$22,329 and accrued interest of \$5,361 were repaid in full in October 2014.

2013 revolving credit agreement

During June 2013, the Company entered into a two-year revolving credit facility of \$25,000 (2013 Revolver). The 2013 Revolver included a commitment fee of 0.375% of the average daily amount of the available revolving commitment. The fee was payable monthly in arrears on the first day of the month. As of December 31, 2013, the weighted average interest rate on the borrowings under the 2013 Revolver was 2.05%. In October 2014, the Company repaid and terminated the 2013 Revolver.

2014 credit agreement

On October 10, 2014 (Closing), the Company entered into a \$215,000 credit agreement (2014 Credit Agreement) with JPMorgan Chase Bank, N.A. (JP Morgan), as well as a syndicate of other banks, financial institutions and other entities (Lenders). The 2014 Credit Agreement is comprised of a \$115,000 first lien term loan (First Lien Term Loan), a \$60,000 second lien term loan (Second Lien Term Loan) and a \$40,000 revolving facility (2014 Revolver).

All obligations under the 2014 Credit Agreement are guaranteed by the Company and certain of the Company's direct and indirect wholly-owned domestic subsidiaries. The obligations under the 2014 Credit Agreement are collateralized by substantially all of the assets of the Company. The First Lien Term Loan obligations rank higher in right of payment to the Second Lien Term Loan. The First Lien Term Loan and 2014 Revolver mature on October 10, 2019 and the Second Lien Term Loan matures on April 10, 2020 (Maturity).

As of December 31, 2014 and 2015, \$112,248 and \$105,085 was outstanding on the First Lien Term Loan, net of the unamortized original issue discount of \$736 and \$581 and deferred financing costs of \$578 and \$708, respectively. The Company may voluntarily prepay the First Lien Term Loan without premium or penalty upon prior notice. Scheduled quarterly principal payments as a percentage of the aggregate initial principal borrowed are as follows, with the remaining outstanding principal due at Maturity:

	Percentage	Quarterly payment
December 31, 2014 to September 30, 2015	1.25%	\$ 1,438
December 31, 2015 to September 30, 2016	2.50%	\$ 2,875
December 31, 2016 to September 30, 2017	3.75%	\$ 4,312
December 31, 2017 to September 30, 2018	3.75%	\$ 4,313
December 31, 2018 to Maturity	5.00%	\$ 5,750

The Second Lien Term Loan principal is due at Maturity and as of December 31, 2014 and 2015, \$57,225 and \$57,459 was outstanding, net of the unamortized original issue discount of \$1,147 and \$927 and deferred financing costs of \$1,630 and \$1,613, respectively. After October 10, 2017, the Company may voluntarily prepay the Second Lien Term Loan without premium or penalty upon prior notice. Prepayments made prior to October 10, 2017 will be subject to the prepayment premiums below:

Payment timing	Premium
In advance of October 10, 2015	3.00%
On October 10, 2015 but in advance of October 10, 2016	2.00%
On October 10, 2016 but in advance of October 10, 2017	1.00%

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The First and Second Lien Term Loans permit at the Company's election either Eurodollar or Alternate Base Rate (ABR) term loans, which are due at Maturity. ABR term loans have interest due the last day of each calendar quarter-end. Eurodollar loans are one, two, three or six-month loans and interest is due on the last day of each three-month period or the last day of the loan term if less than three months. In advance of the last day of the current Eurodollar Loan, the Company may select a new loan type so long as it does not extend beyond Maturity. The outstanding First and Second Lien Term Loans have been Eurodollar Loans since inception. In addition, both First and Second Lien Term Loans have an interest due date concurrent with any scheduled principal repayment or prepayment.

The 2014 Revolver is a five-year revolving credit facility of \$40,000 which includes revolving and swingline loans as well as letters of credit (LOC) and, inclusive of all, cannot exceed \$40,000 at any one time. Revolving loans may be Eurodollar or ABR loans at the Company's election which are not due until the termination date or Revolver Maturity, and interest is payable on the same terms as described in the previous paragraph for the First and Second Lien Term Loans. Swingline loans are available as ABR loans only and are due within five business days or Revolver Maturity whichever is earlier. The Company had not borrowed on the 2014 Revolver at December 31, 2014, leaving \$40,000 available. As of December 31, 2015, the 2014 Revolver balance is \$8,000, leaving \$32,000 available. There were no LOCs outstanding under the 2014 Revolver, as of December 31, 2014 and 2015.

The base interest rate for all ABR loans is equal to the highest of (a) the JP Morgan Prime Rate, (b) the Federal Funds Effective Rate plus $\frac{1}{2}\%$ and (c) the Eurodollar Rate for a USD deposit with a maturity of one month plus 1.0% (rounded upward to the next $\frac{1}{16}$ of 1%). The base interest rate for all Eurodollar Loans is equal to the rate determined for such day in accordance with the following formula with the Second Lien Term Loans having a floor of 1.00%:

LIBOR

1—Eurocurrency Reserve Requirements

In addition to the base interest rate, all Eurodollar and ABR loans have a margin. The First Lien Term Loan margins are tied to a leverage ratio which is the ratio of debt to Consolidated EBITDA (as defined in the 2014 Credit Agreement) for four consecutive quarters at the end of each period. Pricing grids are used to determine the margin based on the type of loan and the leverage ratio. The Second Lien Term Loan margins are fixed at 10.00% for Eurodollar Loans and 9.00% for ABR Loans.

The First Lien Term Loan margin is adjusted after the quarterly financial statements are delivered to the lenders. Below is the pricing grid:

Leverage ratio	Eurodollar	ABR
³ 4.00 to 1.00	3.00%	2.00%
³ 3.00 to 1.00 but < 4.00 to 1.00	2.75%	1.75%
³ 2.00 to 1.00 but < 3.00 to 1.00	2.50%	1.50%
< 2.00 to 1.00	2.25%	1.25%

Interest is calculated based on a 360-day year except for ABR loans where the base interest is the JP Morgan Prime Rate, in which case it is calculated based on a calendar-day year. As of December 31, 2015, the First and Second Lien Term Loan interest rates including the margin were 3.2% and 11.0%, respectively.

The Company may be required to make additional principal payments on the First and Second Lien Term Loans dependent upon the generation of certain cash flow events or excess cash as defined in the 2014 Credit

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Agreement. These additional prepayments will be applied to the scheduled installments of principal in direct order of maturity of the ABR Loans first and then the Eurodollar Loans.

The 2014 Revolver includes a commitment fee at 0.50% of the average daily amount of the available revolving commitment, assuming any swingline loans outstanding are \$0. There were no swingline loans outstanding at December 31, 2014 or 2015. The fee is payable quarterly in arrears on the last day of the calendar quarters and the Revolver Maturity. On and after the first adjustment date the rate will be determined based on the pricing grid below.

Leverage ratio	Commitment fee rate
³ 4.00 to 1.00	0.50%
³ 3.00 to 1.00 but < 4.00 to 1.00	0.45%
³ 2.00 to 1.00 but < 3.00 to 1.00	0.40%
< 2.00 to 1.00	0.35%

LOCs are available in an amount not to exceed \$5,000. Fees are charged on all outstanding LOCs at an annual rate equal to the margin in effect on Eurodollar revolving loans. A fronting fee of 0.125% per year on the undrawn and unexpired amount of each LOC is payable as well. The fees are payable quarterly in arrears on the last day of the calendar quarters after Closing.

The 2014 Credit Agreement required that, on or before January 8, 2015, the Company to enter into, and thereafter maintain for not less than three years, agreements so that at least 25% of the First Lien Term Loans are subject to a fixed interest rate. During November 2014, the Company entered into three interest rate swap agreements totaling \$70 million with a term of three years (discussed further in Note 6).

As of December 31, 2014 and 2015, the effective interest rate, including the applicable lending margin, on 61.6% and 65.8%, respectively, or \$70.0 million, of the outstanding principal of the Company's First Lien Term Loan was fixed at 4.19% through the use of the interest rate swaps. As of December 31, 2014 and 2015, the Company's effective weighted average interest rate on all outstanding debt, including the commitment fee and interest rate swaps, was 6.21% and 6.38%, respectively.

The 2014 Credit Agreement contains certain covenants, including, but not limited to (1) a minimum fixed charge ratio and a maximum debt leverage ratio requirement as defined in the 2014 Credit Agreement, (2) restrictions on the declaration or payment of certain distributions on or in respect of the Company's equity interests, (3) restrictions on acquisitions, investments and certain other payments, (4) limitations on the incurrence of new indebtedness, (5) limitations on transfers, sales and other dispositions and (6) limitations on making any material change in any of the Company's business objectives that could reasonably be expected to have a material adverse effect on the repayment of the note.

Each Lender may provide an additional First Lien, Second Lien and or Revolving Loan by executing and delivering notice specifying the terms, provided that doing so would not cause certain undesired events to occur as defined in the 2014 Credit Agreement or extend repayment beyond Maturity. The aggregate amount of all additional borrowings may not exceed \$25,000 without the consent of the Lenders holding more than 50% of the total outstanding debt under the 2014 Credit Agreement.

Financing costs

As a result of entering into the 2013 Revolver, the Company incurred a total of \$275 in financing costs. These costs were recorded in prepaid and other current assets and were being amortized to interest expense on a straight-line basis over the life of the 2013 Revolver, which approximated the effective interest method. During

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October 2014, the bank that provided the 2013 Revolver became one of the syndicate banks for the 2014 Credit Agreement. The net financing costs related to the 2013 Revolver of \$97 were combined with the 2014 Credit Agreement financing costs of \$2,520 and totaled \$2,617. During November 2015, the Company paid financing costs totaling \$910 in order to amend future debt covenant requirements and to obtain approval for the BioStructures acquisition.

\$192 of the 2015 finance costs were recorded directly to interest expense. The remaining \$718 along with the \$2,617 was capitalized to the consolidated balance sheet. The portion related to the First and Second Lien Term Loans totaling \$2,893 was recorded as a reduction to long-term debt while the portion related to the 2014 Revolver totaling \$456 was recorded in other assets. The deferred financing costs are being amortized to interest expense on a straight-line basis over each of the lives of the First Lien Term Loan, Second Lien Term Loans and 2014 Revolver, as applicable, which approximates the effective interest method. The Company recorded \$75, \$226 and \$510 in interest expense associated with these deferred costs for the years ended December 31, 2013, 2014 and 2015, respectively.

Contractual maturities of long-term debt at December 31, 2015, were as follows:

2016	\$ 12,938
2017	17,250
2018	18,688
2019	57,500
2020 and thereafter	60,000
Deferred finance costs	(2,322)
Original issue discount	(1,509)
Total long-term debt	162,545
Less current portion	(12,938)
Total	\$149,607

6. Derivatives

The Company does not use derivative financial instruments for speculative or trading purposes. The Company was not a party to derivative instruments in 2013. As of December 31, 2014 the Company had one foreign exchange forward contract (5,000 Euro notional) to protect against the effect of foreign currency fluctuations on a 5,000 Euro payment made in November 2015. The derivative instrument was not designated as a hedge. In November 2015 the Company paid \$6,234 for the 5,000 Euro resulting in a realized loss of \$941 recorded in other (income) expense on the consolidated statement of operations and comprehensive loss. This realized loss was 100% offset by the realized gain recognized on the final license agreement payment discussed further in Note 13.

In November 2014, the Company entered into three interest rate swaps effective November 28, 2014 and expiring November 30, 2017 in an effort to limit its exposure to changes in the variable interest rate on its First Lien Term Loan (as discussed in Note 5). The derivative instruments have not been designated as hedges.

The fair values of the Company's derivatives recorded in accrued liabilities in the Company's consolidated balance sheets are as follows at December 31:

	2014	2015
Interest rate swaps	\$ (134)	\$ (286)
Foreign exchange forward contract	(187)	—
Total	\$ (321)	\$ (286)

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The effect of the Company's derivatives on the consolidated statements of operations and comprehensive loss is as follows for the year ended December 31 (except for 2013 where there was no derivative outstanding):

	Statement of operations and comprehensive loss	2014	2015
Interest rate swaps	Interest expense	\$134	\$152
Foreign exchange forward contract	Other (income) expense	187	754
Total		\$321	\$906

7. Members' equity

Members' equity consisted of the following at December 31:

	2014	2015
Preferred	\$118,000	\$168,000
Common	113,400	113,373
Profits interest (discussed further in Note 10)	2,570	3,455
	\$233,970	\$284,828

The authorized number of common and preferred units is unlimited. On May 4, 2012, 4,900 common units and 5,100 preferred units (2012 Preferred Units) were issued and remained outstanding as of December 31, 2014. During November 2015, the Company obtained a \$50,000 capital contribution from its existing members and 1,490 in preferred units were issued (2015 Preferred Units). The Common and Preferred Members have stated rights and privileges which include, but are not limited to: (1) voting and Company governance, (2) the transfer of membership interests and (3) dissolutions and liquidation of the Company.

Each preferred unit carries a priority payout (the Liquidation Preference as defined in the agreement) upon certain events, including but not limited to a qualified initial public offering, sale of the Company or a liquidation or dissolution of the Company (Distribution Event). The initial Liquidation Preference for the 2012 and 2015 Preferred units are \$23.14 and \$33.57, respectively. Until such time as preferred units are converted to common units, the preferred units will also accrue a distribution right (the Preferred Distribution) at a rate of 3% per annum and as long as it is unpaid, such Preferred Distribution shall be added annually to the Liquidation Preference.

In addition to the common units, the Common Member owns the only Equity Participation Right (EPR) Unit. The EPR Unit is junior to the common units and its only entitlement is 0.55% of available distributions arising from a Distribution Event. Upon the conclusion of a Distribution Event, the EPR Unit will cease to exist and all entitlements will end.

8. Fair value measurements

Recurring fair value measurements

There were no material assets subject to recurring fair value measurement carried on the accompanying consolidated balance sheet at December 31, 2014 and 2015.

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The following table provides information, by level, for liabilities that were measured at fair value on a recurring basis at December 31, 2014:

	Total	Level 1	Level 2	Level 3
Liabilities:				
Contingent consideration	\$32,215	\$ —	\$ —	\$32,215
Interest rate swaps	134	—	134	—
Foreign exchange forward contracts	187	—	187	—
Management incentive plan and liability-classified awards	1,484	—	—	1,484
EPR liability	1,037	—	—	1,037
Total liabilities	\$35,057	\$ —	\$ 321	\$34,736

The following table provides information, by level, for liabilities that are measured at fair value on a recurring basis at December 31, 2015:

	Total	Level 1	Level 2	Level 3
Liabilities:				
Contingent consideration	\$39,905	\$ —	\$ —	\$39,905
Interest rate swaps	286	—	286	—
Management incentive plan and liability-classified awards	3,924	—	—	3,924
EPR liability	2,389	—	—	2,389
Total liabilities	\$46,504	\$ —	\$ 286	\$46,218

Below is a summary of the valuation techniques used in determining fair value:

Contingent consideration—The Company values contingent consideration related to business combinations using a weighted probability calculation of potential payment scenarios discounted at rates reflective of the risks associated with the expected future cash flows. Key assumptions used to estimate the fair value of contingent consideration include revenue, net new business and operating forecasts and the probability of achieving the specific targets.

Interest rate swaps—The Company values interest rate swaps by discounting cash flows of the swap. Forward curves and volatility levels are used to estimate future cash flows that are not certain. These are determined using observable market inputs when available and on the basis of estimates when not available.

Foreign exchange forward contracts—The Company values foreign exchange forward contracts using quoted market prices for similar assets in less active markets or using other observable inputs.

Management incentive plan (MIP) and liability-classified awards—The Company values these awards using the Monte Carlo option model to allocate fair value. Key assumptions used to estimate the fair value include expected stock price volatility, risk-free interest rate, dividend yield and the average time the award is expected to be outstanding.

EPR liability—The Company values the EPR Unit using a weighted probability calculation of potential payment scenarios discounted at rates reflective of the risks associated with the expected future cash flows. Key assumptions used to estimate the fair value of the EPR Unit include the timing and amount available from a Distribution Event. In addition, in 2013 a key assumption used was the date at which the percentage applied to the distributions would become fixed, which coincided with the Related Party Note repayment date.

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The percentages that would be applied to distributions resulting from a Distribution Event started in 2013 and accrued daily on a straight-line basis:

November 4, 2013 and before	0.00%
November 4, 2013 to May 4, 2015	0.00%-0.89%
May 4, 2015 to May 4, 2016	0.89%-1.61%
May 4, 2016 to May 4, 2017	1.61%-2.50%

Management's probability assessment of the Related Party Note repayment date included the following three scenarios in 2013:

Prior to November 2014	90%
Prior to June 30, 2015	9%
Prior to May 4, 2017 (maturity)	1%

In October 2014, the percentage that will be applied to distributions resulting from a Distribution Event became fixed at 0.55%.

The following tables summarize the changes in the Level 3 contingent consideration liabilities measured on a recurring basis for the years ended December 31:

	Contingent consideration		MIP and liability-classified awards		EPR liability	
	2014	2015	2014	2015	2014	2015
Beginning balance	\$ —	\$ 32,215	\$ —	\$ 1,484	\$ —	\$1,037
Initial estimate	32,344	4,542	1,484	1,244	470	—
Change in fair value	1,602	19,493	—	1,196	567	1,352
Payment	(1,731)	(16,345)	—	—	—	—
Ending balance	\$32,215	\$ 39,905	\$ 1,484	\$ 3,924	\$1,037	\$2,389

The contingent consideration change in fair value of \$1,602 and \$19,493 for the years ended December 31, 2014 and 2015, respectively, was primarily driven by sales exceeding estimates at the OsteoAMP acquisition date as well as higher than estimated inventory on hand.

The revaluation for the EPR liability is recognized in interest expense on the consolidated statements of operations and comprehensive loss.

Non-recurring fair value measurements

The carrying value of the 2014 Credit Agreement and other indebtedness was not materially different from fair value at December 31, 2014 and 2015. The fair value of these obligations was determined based on discounted cash flows using estimated incremental borrowing rates for obligations with similar characteristics.

As of December 31, 2014 and 2015, assets carried on the consolidated balance sheet and not remeasured to fair value on a recurring basis are comprised of long-lived assets, finite and indefinite-lived intangible assets and goodwill.

9. Restructuring costs

In November 2014, the Company adopted a plan to restructure and no longer sell a diagnostic ultrasound product in order to improve margins, principally through headcount reduction which was communicated to the affected employees in January 2015. Costs included in the restructuring plan are employee severance,

provisions for inventory and other administrative expenses. For the year ended December 31, 2014, the Company recorded total pre-tax charges of \$1,183 related to the inventory provision. For the year ended December 31, 2015, the Company recorded total pre-tax charges of \$490 related to severance, \$202 related to inventory write offs and \$221 in other administrative expenses. The plan was completed in 2015 with total costs incurred of \$2,096.

In January 2015, the Company adopted a plan to restructure and relocate certain finance functions from Memphis, TN to headquarters in Durham, NC. The plan was completed in 2015 with charges totaling \$960. For the year ended December 31, 2015, the Company recorded total pre-tax charges of \$508 related to severance and temporary labor, \$258 related to consulting and compensation for departing employees that remained through the transition and \$194 in other administrative expenses.

In November 2015, the Company adopted a restructuring plan to improve margins in the international business principally through headcount reduction. The plan is expected to be completed in 2016. For the year ended December 31, 2015, the Company recorded total pre-tax charges of \$772 related to severance. The Company estimates that the one-time costs will total \$952 upon completion. Final restructuring costs of \$180 are expected to be expensed in 2016 upon notifying employees of termination.

These charges are included in restructuring expenses in the consolidated statement of operations and comprehensive loss and all relate to the Active Healing Therapies segment. There were no restructuring charges in 2013. During the year ended December 31, 2014 and 2015 the Company made payments and provision adjustments for all plans as presented below:

	Employee severance and temporary labor costs	Other charges	Total
Balance at December 31, 2013	\$ —	\$ —	\$ —
Expenses incurred	—	1,183	1,183
Inventory reserved for	—	(1,183)	(1,183)
Balance at December 31, 2014	—	—	—
Expenses incurred	1,770	875	2,645
Payments made	(998)	(875)	(1,873)
Balance at December 31, 2015	\$ 772	\$ —	\$ 772

10. Benefit plans

Equity-based compensation plans

The Company operates two equity-based compensation plans, the MIP and the Phantom Profits Interest Plan (PIP). The awards granted under both plans represent a non-managing, non-voting interest in the Company designed for grantees to share in the future appreciation of the value of the Company. The total amount of awards available for grant through May 2015 was limited to 1,111,111. In June 2015 the PIP was amended and restated increasing the awards available for distribution by 821,722 bringing the total awards available to 1,932,833. At December 31, 2015, 484,370 units were available for award. Profits interest compensation of \$576, \$2,355 and \$3,325 was recognized for the years ended December 31, 2013, 2014 and 2015, respectively. The expense is included in SG&A and R&D on the consolidated statement of operations and comprehensive loss based upon the classification of the employee. As of December 31, 2015, there was approximately \$6,759 of unrecognized compensation expense to be recognized over a weighted-average period of 0.5 years for the MIP and 1.5 years for the PIP.

MIP liability-classified

The awards granted under MIP vest 25% upon the first anniversary of the grant date and 6.25% per quarter thereafter. Receipt of value will be realized upon sale of the Company or a liquidation or dissolution of the Company as defined in the LLC Agreement (MIP Distribution Event) and will be based on the grantees to vested ownership of their award in proportion to the Company's equity, including vested interests under both the MIP and PIP plans, after all debt and equity holders have been repaid. Cumulative distributions that must be made to the members before distributions are made (Benchmark Amount) total \$231,372 for MIP awards. The MIP award allows the grantee to force a cash settlement after the 5th anniversary of the effective date of the award if the grantee retires. The proceeds received by the MIP grantee upon a forced cash settlement will be calculated on the same basis as if a MIP Distribution Event occurred. The value to be allocated to the MIP grantee will be calculated as the greater of fair value in an arms-length transaction or 8.25 times the annualized most recent 6 month EBITDA. The MIP awards are re-measured to fair value at each reporting date and are included in other long-term liabilities on the consolidated balance sheet (as discussed in Note 8).

2012 PIP equity-classified

Awards granted under the 2012 PIP generally vest over a five-year period. The majority of the awards vest 20% on each of the first five anniversaries from the grant date. Certain awards vest 20% upon the first anniversary of the grant date and 5% per quarter thereafter. Receipt of value will be realized upon the closing of a sale of units representing a percentage interest of more than 66.66%, or the sale of all or substantially all of the assets of the Company, provided such event constitutes a change of control (PIP Distribution Event) and will be based on the grantees vested ownership of their award in proportion to the Company's equity, including vested interests under both the MIP and PIP plans, after all debt and equity holders have been repaid. Payment amount for vested awards shall be equal to an amount that would be payable with respect to the equivalent number of PIP units with an equivalent Benchmark Amount pursuant to the LLC Agreement, which is \$231,372.

2015 PIP value creation liability-classified

2015 PIP Value Creation awards were granted in 2015 with a three year cliff vesting related to the 2017 enterprise value as follows:

		³ \$690,000	
		but	
2017 enterprise value	<\$690,000	<\$740,000	³\$740,000
Percent vested	0%	50%	100%

Receipt of value will be realized upon a PIP Distribution Event or termination that was not for cause, whichever comes first. The payment amount for vested awards shall be an amount that would be allocated to an equivalent number of PIP units with an equivalent Benchmark Amount, or \$367,264, upon a PIP Distribution Event or upon termination as if the Company were liquidated on the termination date at fair market value. Payment will be based on the grantees vested ownership of their award in proportion to the Company's equity, including vested interests under both the MIP and PIP plans, after all debt and equity holders have been repaid. The 2015 PIP Value Creation awards are re-measured to fair value at each reporting date and are included in other long-term liabilities on the consolidated balance sheet (as discussed in Note 8).

2015 PIP liability-classified

Awards granted under the 2015 PIP generally vest over a five-year period. The majority of the awards vest 20% on each of the first five anniversaries from the grant date. Certain awards vest 20% upon the first anniversary of the grant date and 5% per quarter thereafter. Receipt of value will be realized upon a PIP Distribution Event or termination that was not for cause whichever comes first. The payment amount for vested awards shall be an amount that would be allocated to an equivalent number of PIP units with an equivalent Benchmark Amount, or

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\$367,264, upon a PIP Distribution Event or upon termination as if the Company were liquidated on the termination date at fair market value. Payment will be based on the grantees vested ownership of their award in proportion to the Company's equity, including vested interests under both the MIP and PIP plans, after all debt and equity holders have been repaid. The 2015 PIP awards are re-measured to fair value at each reporting date and are included in other long-term liabilities on the consolidated balance sheet (as discussed in Note 8).

The assumptions utilized to determine the fair value of the awards for the years ended December 31 are indicated in the following table:

	2013	2014	2015
Expected dividend yield	0.0%	0.0%	0.0%
Expected volatility	42.1%	40.7%	50.0%
Risk-free interest rate	1.3%	1.3%	0.4%
Time to exit event (in years)	5.0	4.0	0.6

A summary of the award activity of the Plans is as follows (number of awards in thousands):

	MIP and 2012 plan		2015 plan	
	Number of awards	Weighted-average grant-date fair value	Number of awards	Weighted-average grant-date fair value
Outstanding at December 31, 2012	817	\$ 5.12	—	\$ —
Granted	506	\$ 4.89	—	\$ —
Forfeited	(358)	\$ 5.12	—	\$ —
Outstanding at December 31, 2013	965	\$ 5.00	—	\$ —
Granted	140	\$ 9.31	—	\$ —
Forfeited	(56)	\$ 6.03	—	\$ —
Outstanding at December 31, 2014	1,049	\$ 5.52	—	\$ —
Granted	40	\$ 10.01	379	\$ 3.92
Forfeited	(20)	\$ 6.06	—	\$ —
Outstanding at December 31, 2015	1,069	\$ 5.68	379	\$ 3.92

The weighted average fair value per 2012 Plan awards granted in the years ended December 31, 2013, 2014 and 2015 was \$4.89, \$9.31 and \$10.01, respectively. The weighted average fair value per 2015 Plan awards granted in the year ended December 31, 2015 was \$3.92.

	MIP and 2012 plan	
	Number of awards	Weighted-average grant-date fair value
Nonvested at December 31, 2012	817	\$ 5.12
Vested during 2013	128	\$ 5.12
Nonvested at December 31, 2013	837	\$ 4.98
Vested during 2014	197	\$ 6.66
Nonvested at December 31, 2014	726	\$ 7.31
Vested during 2015	226	\$ 7.25
Nonvested at December 31, 2015	891	\$ 7.58

The total fair value of 2012 Plan shares vested in the years ended December 31, 2013, 2014 and 2015 was \$655, \$1,312 and \$3,001, respectively. No 2015 Plan shares have vested.

Defined contribution plans

The Company has various defined contribution plans or plans that share profit which are offered in Australia, Canada, Finland, France, Germany, Italy, the Netherlands and the United Kingdom. In some cases, these plans are required by local laws or regulations. Contributions are primarily discretionary, except in some countries where contributions are contractually required. These plans cover substantially all eligible employees in the countries where the plans are offered either voluntarily or statutorily.

In the US, the Company provides a 401(k) defined contribution plan that covers substantially all US employees that meet minimum age requirements, or US Plan. The Company matches 50% of the employees' contribution up to 6% of the employees' wages. In addition, the Company contributes 4.5% of the employees' wages to the US Plan.

For the years ended December 31, 2013, 2014 and 2015 Company contributions totaled \$4,514, \$4,831 and \$4,562, respectively, for all global plans. The expense is included in cost of sales, SG&A and R&D on the consolidated statement of operations and comprehensive loss based upon the classification of the employee.

11. Income taxes

The components of income (loss) from operations before income taxes for the years ended December 31 are as follows:

	2013	2014	2015
Taxable subsidiaries:			
Domestic	\$ 4,501	\$ 2,025	\$ 3,804
Foreign	(1,985)	3,211	2,931
	2,516	5,236	6,735
Other domestic subsidiaries	(22,756)	(16,589)	(38,706)
Pretax loss	\$(20,240)	\$(11,353)	\$(31,971)
	2013	2014	2015
Federal income taxes:			
Current	\$1,728	\$1,335	\$1,770
Deferred	(476)	(476)	(476)
Foreign income taxes:			
Current	442	1,291	633
Deferred	45	52	69
State income taxes:			
Current	432	(378)	190
Deferred	(44)	(277)	(46)
Provision for income tax expense	\$2,127	\$1,547	\$2,140

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The differences between the effective income tax rate and the federal statutory income tax rates for the years ended December 31 by taxable and other subsidiaries are as follows:

	2013	2014	2015
U.S. statutory income tax rate	34.0 %	34.0 %	34.0 %
LLC flow-through structure	(38.2)	(49.7)	(41.2)
State and local income taxes, net of federal benefit	(1.4)	(2.0)	(0.6)
Foreign rate differential	(5.7)	1.2	0.6
Provision to return adjustment	0.7	(6.3)	0.5
State refund for jurisdiction change	0.0	9.2	0.0
Other	0.1	0.0	0.0
Effective income tax rate	(10.5)%	(13.6)%	(6.7)%

The Company's effective tax rate differs from statutory rates primarily due to Bioventus LLC's pass-through structure for U.S. income tax purposes while being treated as taxable in certain states and various foreign jurisdictions as well as for certain subsidiaries. The 2014 taxable provision to return adjustment was driven in part by changes in items estimated in the original provision.

Tax effects of temporary differences give rise to deferred tax assets and liabilities. The deferred taxes as of December 31 are as follows:

	2014	2015
Deferred tax assets:		
Net operating losses	\$ 179	\$ 84
Deferred tax liability:		
Amortization	(9,052)	(8,529)
Negotiated tax deferral	(276)	(251)
	(9,328)	(8,780)
Net deferred tax liability	<u>\$ (9,149)</u>	<u>\$ (8,696)</u>

The Company has foreign NOL carryforwards of \$527 and \$227 at December 31, 2014 and 2015, respectively, for which no valuation allowance has been established as there are no jurisdictions where the Company believes future benefit is uncertain. These NOL carryforwards do not expire.

Dutch income taxes are imposed on a negotiated percentage of sales. The Company has an agreement with the Dutch taxing authorities where the Company's Netherland subsidiary will incur but not have to pay income taxes in years when the subsidiary is operating at a loss. As a result, based on the net sales for the year ended December 31, 2013, the Company recorded a deferred tax liability of \$276 which is still outstanding at December 31, 2015.

Minimal interest and penalties were incurred for the years ended December 31, 2013, 2014 and 2015. The Company is subject to audit by various taxing jurisdictions for the years ended December 31, 2013, 2014 and 2015.

12. Related-party transactions

Sales of \$3,176 and \$556 were made to S&N for the years ended December 31, 2013 and 2014, respectively, and as of December 31, 2014 the related trade receivables totaled \$498. There were no such sales for the year ended December 31, 2015 and no receivable outstanding at December 31, 2015.

The Company made cash tax distributions of \$2,501, \$2,399 and \$1,016 to its members in an amount equal to approximately 40% of the members' estimated taxable income for the years ended December 31, 2013, 2014 and 2015, respectively.

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In conjunction with the business formation, the Company entered into a \$160,000 senior secured note with S&N which was repaid in October 2014 (discussed further in Note 5). During 2013, the Company acquired from S&N additional net distributor assets in foreign markets for \$4,874.

On May 4, 2012, the Company entered into a Transition Services Agreement (TSA) with S&N indicating that certain services would be provided to the Company relating to operations, logistics and distribution, global information services, finance and human resources. In consideration for these services, the Company incurred estimated arms-length expenses of \$4,298 and \$216 for the years ended December 31, 2013 and 2014, respectively. There were no such expenses for the year ended December 31, 2015 and there were no related payables at December 31, 2014 and 2015.

13. Commitments and contingencies

Leases

The Company leases its office facilities as well as other property and equipment under operating lease agreements that expire in various years through 2020 and records rent expense related to the leases on a straight-line basis over the term of the lease. Rent expense was \$3,131, \$3,182 and \$3,186 for the years ended December 31, 2013, 2014 and 2015, respectively. Certain facility leases provide for reduced rent periods. As of December 31, 2014 and 2015, respectively, these rent concessions totaling \$982 and \$902 have been reflected in accrued liabilities and other long-term liabilities in the consolidated balance sheets.

Lease payments are subject to increases as specified in the lease agreements. Future minimum lease payments, by year and in the aggregate, under capital leases and non-cancelable operating leases as of December 31, 2015, were as follows:

	Operating leases	Capital leases
2016	\$ 3,023	\$ 1,354
2017	2,599	1,155
2018	2,229	38
2019	1,456	—
2020	447	—
2021 and thereafter	—	—
Total minimum payments	\$ 9,754	2,547
Less amounts representing interest		(125)
Present value of capital lease obligations		2,422
Less current maturities		(1,200)
Capital lease obligations, less current maturities		\$ 1,222

No particular lease obligation ranks senior in right of payment to any other. The gross value of assets under capital leases at December 31, 2014 and 2015 was approximately, \$4,143 and \$4,679, respectively. These assets mainly consist of software and computer equipment and are included in property and equipment. The accumulated depreciation associated with these assets at December 31, 2013, 2014 and 2015, was approximately \$913, \$2,055 and \$3,412, respectively. Depreciation of capital lease assets is included in depreciation and amortization expense as well as cost of sales in the consolidated statements of operations and comprehensive loss.

Other matters

On December 31, 2013 the Company entered into an amended and restated license agreement with a supplier (the License Agreement) that included an option to purchase certain trademarks as well as product registrations and clinical data (the IP) of a product the Company currently sells. The License Agreement grants the Company an exclusive license to commercialize the product outside of the U.S. without competition for five years. In addition, the Company was no longer required to make royalty payments to the supplier. In accordance with the License Agreement, the Company made payments of \$19,668 in 2014 and \$3,726 in 2015, including implicit interest. The Company also paid \$1,597 and exercised the option to purchase the IP.

In November 2015 upon acquiring BioStructures, the Company assumed an exclusive license and supply agreement for the use of bioactive glass in certain of its products. The Company assumed a world-wide, royalty bearing license, as well as the right to sublicense, for the use of certain developed technologies related to spine repair. The Company is required to pay a royalty of 3% on all commercial sales revenue from the licensed products. Royalty expense is included in cost of sales. The agreement will expire in 2019 upon the expiration of the last to expire patents held by the licensor.

In November 2015 upon acquiring BioStructures, the Company assumed an exclusive license agreement for bioactive bone graft putty. The Company was required to pay a royalty of 3% on all commercial sales revenue from the license products with a minimum annual royalty payment of \$201 for the period from 2015 through 2023. In March 2016 this royalty agreement was amended. Subsequent to the amendment, the royalty rate has changed to 1.5% in 2016 and 2017 and 2.0% for 2018 through 2023. Royalty expense is included in cost of sales. The agreement will expire in 2023 upon the expiration of the patent held by the licensor.

From time to time, the Company causes LOCs to be issued to provide credit support for guarantees, contractual commitments and insurance policies. The fair values of the letters of credit reflect the amount of the underlying obligation and are subject to fees payable to the issuers of the letters of credit, competitively determined in the marketplace. As of December 31, 2014 and 2015, the Company had a letter of credit for \$122 and \$110, respectively, outstanding with one of the Company's banking institutions. As of December 31, 2015, the Company had a letter of credit for \$110 outstanding and \$28 outstanding with the Company's primary banking institution.

The Company currently maintains insurance for risks associated with the operation of its business, provision of professional services and ownership of property. These policies provide coverage for a variety of potential losses, including loss or damage to property, bodily injury, general commercial liability, professional errors and omissions and medical malpractice. The Company's retentions and deductibles associated with these insurance policies range in amounts up to \$1,250. The Company is self-insured for health insurance for the majority of its employees located within the US, but maintains stop-loss insurance on a "claims made" basis for expenses in excess of \$100 per member per year.

As part of the formation of the Company, Bioventus is liable to S&N for one-half of all costs incurred in the defense and litigation of a certain pre-acquisition legal dispute for an amount not to exceed \$5,000. Legal expenses for the years ended December 31, 2014 and 2015 totaled \$274 and \$131, respectively, and are included in SG&A on the consolidated statements of operations and comprehensive loss. The legal expense liability at December 31, 2014 was \$160. There was no legal expense liability outstanding at December 31, 2015. As of December 31, 2014, a settlement liability totaling \$688 was established for this contingency as an adverse outcome of these legal proceedings was deemed to be probable or reasonably estimable and the liability remains outstanding at December 31, 2015.

In the normal course of business, the Company periodically becomes involved in various claims and lawsuits that are incidental to the business. Management of the Company, after consultation with legal counsel, does not believe there are any unrecorded matters that will have a material effect upon the Company's financial statements.

14. Net loss per unit

The following table presents the computation of basic and diluted net loss per unit for the years ended December 31, 2013, 2014 and 2015 as follows:

	2013	2014	2015
Net loss	\$ (22,367)	\$ (12,900)	\$ (34,111)
Accumulated and unpaid preferred distributions	(3,610)	(3,718)	(3,997)
Net loss attributable to common unit holders	(25,977)	(16,618)	(38,108)
Weighted average units used in computing net loss per unit, basic and diluted	4,900	4,900	4,900
Net loss per unit, basic and diluted	\$ (5.30)	\$ (3.39)	\$ (7.78)

The computation of diluted earnings per unit for the years ended December 31, 2013, 2014 and 2015 excludes the effect of potential common units that would be issued upon the conversion of preferred units, profits interest units and the EPR unit as the effect of these units would be antidilutive and only convert upon completion of a Distribution Event.

15. Operations by geographic location

Net sales to external customers are attributed to the United States and to all foreign countries based on the location from which the sale originated. Net sales to external customers and long-lived asset information by geographic area are summarized as follows:

	United States	The Netherlands	Other	Total
Year ended December 31, 2013				
Net sales	\$ 197,118	\$ 31,753	\$ 3,504	\$ 232,375
Property and equipment, net	\$ 13,201	\$ 455	\$ —	\$ 13,656
Year ended December 31, 2014				
Net sales	\$ 198,718	\$ 38,261	\$ 5,914	\$ 242,893
Property and equipment, net	\$ 10,006	\$ 422	\$ —	\$ 10,428
Year ended December 31, 2015				
Net sales	\$ 217,803	\$ 30,025	\$ 5,822	\$ 253,650
Property and equipment, net	\$ 9,370	\$ 232	\$ —	\$ 9,602

16. Segments

The AHT business is comprised of two types of non-surgical products including external bone growth stimulation product for long bone fracture healing and osteoarthritis pain relief products. Following are the net sales for each product type for the years ended December 31:

	2013	2014	2015
External bone growth stimulators	\$121,333	\$131,528	\$130,367
Diagnostic ultrasound products	5,065	3,935	—
Osteoarthritis pain treatment products	105,977	103,280	97,494
	\$232,375	\$238,743	\$227,861

The Surgical business offers a broad portfolio of advanced bone graft substitutes that are designed to improve bone fusion rates following spinal fusion and other orthopedic surgeries.

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Financial information by reportable segment is as follows:

	US AHT	International AHT	Surgical	BMP	Total
Year ended December 31, 2013					
Net sales	\$197,118	\$ 35,257	\$ —	\$ —	\$232,375
Adjusted EBITDA	\$ 32,557	\$ 578	\$ —	\$ (7,650)	\$ 25,485
Depreciation and amortization					(24,458)
Interest expense					(11,459)
Transition and severance costs					(9,232)
Equity compensation					(576)
Loss before income taxes					\$ (20,240)
Total assets	\$375,580	\$ 67,927	\$ —	\$ 9,231	\$452,738
Year ended December 31, 2014					
Net sales	\$194,568	\$ 44,175	\$ 4,150	\$ —	\$242,893
Adjusted EBITDA	\$ 33,466	\$ 7,778	\$ 1,631	\$ (6,682)	\$ 36,193
Depreciation and amortization					(28,820)
Interest expense					(11,969)
Equity compensation					(2,355)
Change in fair value of contingent consideration					(1,590)
Inventory step-up					(1,629)
Restructuring costs					(1,183)
Loss before income taxes					\$ (11,353)
Total assets	\$319,006	\$ 54,427	\$ 47,336	\$ 9,652	\$430,421
Year ended December 31, 2015					
Net sales	\$192,014	\$ 35,847	\$ 25,789	\$ —	\$253,650
Adjusted EBITDA	\$ 40,161	\$ 6,743	\$ 6,591	\$ (11,309)	\$ 42,186
Depreciation and amortization					(33,078)
Interest expense					(14,229)
Equity compensation					(3,325)
Change in fair value of contingent consideration					(19,493)
Inventory step-up					(280)
Restructuring costs					(2,645)
Transition and other non-recurring					(1,107)
Loss before income taxes					\$ (31,971)
Total assets	\$289,638	\$ 56,039	\$132,355	\$ 9,320	\$487,352

17. Subsequent events

On February 9, 2016, in order to enter the three-injection Osteoarthritis pain treatment US market, the Company purchased for ten years with automatic renewal periods the exclusive distribution rights of a three-injection, hyaluronic acid product for pain relief associated with osteoarthritis of the knee for cash of \$6,000. As part of this agreement, the seller will supply the Company products subject to annual minimum purchase requirements for four years.

18. Unaudited pro forma net loss per share

Pro forma basic net loss per share is calculated by dividing net loss attributable to Class A common stockholders by the number of weighted average shares of Class A common stock after giving effect to the corporate conversion.

	2015
Net loss per share, basic and diluted:	
Numerator	
Net loss	
Less: Net loss attributable to non-controlling interests	
Net loss attributable to Class A common stockholders	
Denominator	
Shares of Class A common stock held by the Former LLC Owners	
Shares of Class A common stock held by the Phantom Plan Participants	
Weighted-average shares of Class A common stock	
Net loss per share, basic and diluted	\$

Due to the pro forma net loss of Bioventus LLC for the year ended December 31, 2015, the exchange of shares of Class B common stock was excluded from the calculation of diluted net loss per share and no adjustment to the net loss attributable to non-controlling interests was necessary since all shares were antidilutive.

Independent auditor's report

To: Management and the Board of Managers of BioStructures, LLC

We have audited the accompanying financial statements of BioStructures, LLC, which comprise the statement of financial position as of December 31, 2014, and the related statements of income and comprehensive income, changes in members' equity and of cash flows for the year then ended.

Management's responsibility for the financial statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's responsibility

Our responsibility is to express an opinion on the financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the Company's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of BioStructures, LLC as of December 31, 2014, and the results of its operations and its cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America.

/s/ PricewaterhouseCoopers LLP
Raleigh, North Carolina
February 1, 2016

BioStructures, LLC Statement of financial position December 31, 2014 (Amounts in U.S. dollars)

Assets	
Cash	\$ 309,454
Trade accounts receivable, net	1,600,391
Inventory	999,884
Total current assets	2,909,729
Property and equipment, net	130,488
Intangible assets, net	355,941
Total Assets	\$ 3,396,158
Liabilities and Members' Equity	
Accounts payable	\$ 740,379
Accrued expenses	3,674
Loan	400,000
Total current liabilities	1,144,053
Accrued taxes	467,186
Total Liabilities	1,611,239
Members' equity	853,588
Retained earnings	931,331
Total Members' Equity	1,784,919
Total Liabilities and Members' Equity	\$ 3,396,158

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

BioStructures, LLC Statement of income and comprehensive income Year ended December 31, 2014 (Amounts in U.S. dollars)

Net sales	\$ 12,178,713
Cost of sales	2,256,853
Gross profit	9,921,860
Selling, general and administrative expense	6,066,628
Research and development	379,982
Depreciation	28,753
Operating income	3,446,497
Interest expense	14,397
Other income	(16,335)
Net income and comprehensive income	\$ 3,448,435

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

BioStructures, LLC Statement of changes in members' equity Year ended December 31, 2014 (Amounts in U.S. dollars)

	Members' equity	Retained earnings	Total members' equity
Balance at December 31, 2013	\$ 853,588	\$ 839,397	\$ 1,692,985
Distributions	—	(3,356,501)	(3,356,501)
Net income	—	3,448,435	3,448,435
Balance at December 31, 2014	\$ 853,588	\$ 931,331	\$ 1,784,919

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

BioStructures, LLC Statement of cash flows Year ended December 31, 2014 (Amounts in U.S. dollars)

Cash flows from operating activities	
Net income	\$ 3,448,435
Adjustments to reconcile net income to net cash provided by operating activities	
Depreciation and amortization	93,154
Provision for bad debts	191,144
Changes in operating assets and liabilities:	
Trade accounts receivable	(470,558)
Inventory	(502,341)
Accounts payable and accrued expenses	673,025
Net cash provided by operating activities	<u>3,432,859</u>
Cash flows from investing activities	
Purchase of property and equipment	(62,037)
License fee and milestone payments	(150,000)
Net cash used in investing activities	<u>(212,037)</u>
Cash flows from financing activities	
Repayment of loan	(11,391)
Member distributions	(3,356,501)
Net cash used in financing activities	<u>(3,367,892)</u>
Net decrease in cash	(147,070)
Cash and cash equivalents at the beginning of year	456,524
Cash and cash equivalents at the end of year	<u>\$ 309,454</u>
Supplemental disclosure of cash flow information	
Cash paid for interest	\$ 14,397

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

BioStructures, LLC

Notes to financial statements

(Amounts in U.S. dollars)

1. Organization and Summary of Significant Accounting Policies

The Company

BioStructures, LLC, or BioStructures or the Company, is a limited liability company formed under the laws of the state of California on August 22, 2007 and operates as a partnership. The Company was owned by two members until the acquisition of the Company by Bioventus, LLC in November 2015 (see Note 8).

BioStructures is a medical device company focused on developing innovation propriety platforms in bio-resorbable bone graft products for a broad range of spinal surgical applications. The Company's products are developed to benefit the surgeon and their patients during each phase of the bone healing process. BioStructures' bio-resorbable implants are created for best-in-class performance. The synthetic and allograft implants are designed for proportionate resorption to facilitate balanced bone regeneration with optimized clinical efficacy.

Use of estimates

The preparation of the financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, revenues and expenses during the period, as well as disclosures of contingent assets and liabilities at the date of the financial statements. Actual results may differ from these estimates under different assumptions or conditions.

Cash

The Company's cash consists of cash held by a single financial institution in the U.S. in excess of the federally insured limits.

Fair value

The Company records certain assets and liabilities at fair value (discussed further in Note 5). Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants at the measurement date. A three-level fair value hierarchy that prioritizes the inputs used to measure fair value is described below. This hierarchy requires entities to maximize the use of observable inputs and minimize the use of unobservable inputs.

The three levels of inputs used to measure fair value are as follows:

- Level 1—Quoted prices in active markets for identical assets or liabilities;
- Level 2—Observable inputs other than quoted prices included within Level 1, such as quoted prices for similar assets and liabilities in active markets; quoted prices for identical or similar assets and liabilities in markets that are not active; or other inputs that are observable or can be corroborated by observable market data; and
- Level 3—Unobservable inputs that are supported by little or no market data. This includes certain pricing models, discounted cash flow methodologies and similar techniques that use significant unobservable inputs.

Accounts receivable and allowances

Accounts receivables are amounts due from customers and are recorded at net realizable value for product sold in the ordinary course of business. The Company maintains an allowance for doubtful accounts.

The allowance for doubtful accounts is based on the assessment of the collectability of specific customer accounts and the aging of the accounts receivable. When evaluating the adequacy of this allowance, the Company analyzes accounts receivable, historical bad debts, customer concentrations, customer solvency, current economic and geographic trends, and changes in customer payment terms and practices. Changes to the allowance for doubtful accounts are recorded in selling, general and administrative expense in the statement of income and comprehensive income.

Inventory

Inventories are valued at the lower of cost or estimated net realizable value, after provision for excess or obsolete items. All products the Company sells are procured through third-party contract manufacturing arrangements and cost is determined on an average cost basis, which approximates the first-in, first-out, or FIFO, method. The valuation of finished products and consignment inventory includes the cost of materials, labor and packaging costs. Consignment inventory represents finished products located at third parties, such as distributors and hospitals.

Long-lived assets

Property and equipment are stated at cost and are depreciated using the straight-line method over the shorter of the asset's estimated useful life, or the lease term if related to leased property, as follows (in years):

Automobile	5
Machinery and equipment	3-7
Furniture and fixtures	7

Finite-lived identifiable intangible assets are recorded at cost and are amortized using the straight-line method over their estimated remaining useful lives ranging between 8 and 10 years.

The carrying values of property, equipment, intangible and other long-lived assets are reviewed for recoverability if the facts and circumstances suggest that a potential impairment may have occurred. If this review indicates that carrying values may not be recoverable, as determined based on undiscounted cash flow projections, the Company will perform an assessment to determine if an impairment charge is required to reduce carrying values to estimated fair value. There were no events, facts or circumstances for the year ended December 31, 2014 that resulted in any impairment charges to the Company's property, equipment, intangible or other long-lived assets.

Revenue recognition

Sale of products

The Company primarily sells its products to hospitals and recognizes revenue upon notification from the hospital that the product was used in surgery. Accordingly, revenue is recognized when persuasive evidence of an arrangement exists, delivery has occurred, the fee is fixed or determinable, and collection is reasonably assured. Until such time as the product is used in surgery, ownership of the product remains with the Company.

The Company uses a distribution network to deliver its product to hospitals. The majority of the distributors hold the Company's product on consignment until delivered to the hospitals to be used in surgery. In these circumstances, ownership of the product remains with the Company. The Company does sell products directly to distributors who take ownership of the product at the point of shipment. In these circumstances, the Company recognizes revenue upon delivery to such distributors as there is no right of return. Accordingly, revenue is recognized when persuasive evidence of an arrangement exists, delivery has occurred, the fee is fixed or determinable, and collection is reasonably assured.

Shipping and handling

The Company classifies amounts billed for shipping and handling as a component of net sales. The related shipping and handling fees and costs as well as other distribution costs are included in cost of sales.

Advertising costs

Advertising costs include costs incurred to promote the Company's business and are expensed as incurred. Advertising costs were \$124,346 for the year ended December 31, 2014.

Research and development

Research and development, or R&D, expenses consists primarily of contract research organization services. Internal R&D costs are expensed as incurred. R&D costs incurred by third parties are expensed as the contracted work is performed. Initial and milestone payments made to third parties in connection with technology license agreements are also expensed as incurred as research and development costs, up to the point of regulatory approval. Payments made to third parties subsequent to regulatory approval will be capitalized and amortized over the estimated remaining useful life of the related product.

Income taxes

The Company is treated as a partnership for US tax purposes. Accordingly, the profits and losses are passed through to the members and included in their income tax returns. The Company makes periodic distributions to its members.

Recently issued accounting standards

In May 2014, the Financial Accounting Standards Board, or FASB, issued guidance that provides a comprehensive new revenue recognition model that requires a company to recognize revenue to depict the transfer of goods or services to a customer at an amount that reflects the consideration it expects to receive in exchange for those goods or services. The guidance also requires additional disclosure about the nature, amount, timing and uncertainty of revenue and cash flows arising from customer contracts. In August 2015, the FASB approved a one-year deferral of the effective date making this guidance effective for annual and interim periods beginning after December 15, 2018 for private companies. Early application is permitted. This guidance permits the use of either the retrospective or cumulative effect transition method. The Company is currently evaluating the impact this guidance will have on the Company's financial statements.

In July 2015, the FASB issued guidance for simplifying the calculation for subsequent measurement of inventory measured using the first-in-first-out or average cost methods. The guidance is effective for annual periods and interim periods within those annual periods beginning after December 15, 2016, and is effective for the Company for the year ending December 31, 2017. The Company is currently evaluating the impact that the implementation of this standard will have on the Company's financial statements.

2. Balance sheet information

Accounts receivable

Accounts receivable consisted of the following at December 31, 2014:

Accounts receivable	\$ 1,791,535
Less allowance	(191,144)
	<u>\$ 1,600,391</u>

The following table shows the activity in the allowance for doubtful accounts for the year ended December 31, 2014:

Beginning balance	\$ —
Charged to operating expenses	<u>191,144</u>
Ending balance	<u>\$191,144</u>

The allowance as of December 31, 2014 relates to a specific customer that filed for bankruptcy in June 2015.

Inventory

Inventory consisted of the following at December 31, 2014:

Raw materials and supplies	\$176,255
Work-in-process	<u>52,968</u>
Finished goods	<u>770,661</u>
	<u>\$999,884</u>

Finished goods includes consignment inventory representing immediately saleable finished products that are in the possession of the Company's distributors or located at third-party customers, such as hospitals.

Property and equipment, net

Property and equipment consisted of the following at December 31, 2014:

Automobile	\$ 39,135
Furniture and fixtures	<u>29,753</u>
Machinery and equipment	<u>134,645</u>
	<u>203,533</u>
Less accumulated depreciation	<u>(73,045)</u>
Property and equipment, net	<u>\$130,488</u>

Depreciation expense was \$28,753 for the year ended December 31, 2014. The Company's assets are pledged as security under a bank loan agreement.

Intangible assets, net and royalty agreements

In July 2009, the Company entered into an exclusive license and supply agreement for the use of bioactive glass in certain of its products. The Company paid a non-refundable technology access fee of \$230,000 in exchange for the world-wide, royalty bearing license for the use of certain developed technologies related to spine repair.

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The Company is required to pay a royalty of 3% on all commercial sales revenue from the licensed products. In October 2010, the agreement was amended whereby the Company paid \$234,000 as additional consideration primarily to obtain the right to sublicense. During the year ended December 31, 2014, the Company incurred royalty expense of \$153,532. Royalty expense is included in cost of goods sold. The agreement shall expire in 2019 upon the expiration of the last to expire patents held by the licensor.

In November 2011, the Company entered into a development and license agreement with a third party whereby both parties collaborated in the development, pre-clinical and clinical evaluation and commercialization of a product for use in certain orthopedic applications. Pursuant to this agreement, upon receipt of a 510(k) approval for a developed product, both parties agreed to enter into a license agreement for such product. Upon receiving a 510(k) approval in January 2014 for bioactive bone graft putty, the Company paid a \$50,000 milestone payment and in February 2014 the Company entered into an exclusive license agreement with the third party for the developed product whereby the Company paid \$100,000 as a conversion fee. The Company is required to pay a royalty of 3% on all commercial sales revenue from the license products with a minimum royalty payment of \$60,000 in 2013, \$102,000 in 2014 and \$201,000 annually for the period from 2015 through 2023. During the year ended December 31, 2014, the Company incurred the minimum royalty payment of \$102,000. Royalty expense is included in cost of goods sold. The agreement shall expire in 2023 upon the expiration of the last to expire patents held by the licensor.

Intangible assets are recorded at cost and consisted of the following at December 31, 2014:

Licenses	\$ 614,000
Less accumulated amortization:	(258,059)
Intangible assets, net	\$ 355,941

Amortization expense related to intangible assets was \$64,401 for the year ended December 31, 2014 and is included in cost of goods sold. Estimated amortization expense for the years ended December 31, 2015 through 2019 is expected to be \$66,549 for each of the five annual periods and \$23,196 thereafter.

3. Loan

The Company was a party to a loan agreement with a commercial bank with a total borrowing limit of \$2,000,000, with interest payable monthly at LIBOR plus 2.75%. The maturity date of the loan was initially set at August 1, 2013 and was extended in one year increments until paid in full. Outstanding borrowings as of December 31, 2104 were \$400,000. The loan was secured by the assets of the Company and guaranteed by the members. In November 2015, the loan was paid in full and all security interests and guarantees were terminated in connection with sale of the Company (see Note 8).

During 2014, the Company paid in full an outstanding balance of an automobile loan of \$11,391.

4. Members' equity

Members' equity consisted of the following at December 31, 2014:

Members' equity	\$ 853,588
Retained earnings	931,331
Total	\$ 1,784,919

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The Company is owned by two members and all profits and distributions are shared equally. During the year ended December 31, 2014, the Company made aggregate cash distributions of \$3,356,501. On November 24, 2015, the Company was acquired (see Note 8).

5. Fair value measurements

Recurring fair value measurements

There were no material assets or liabilities carried on the accompanying balance sheet at December 31, 2014 that were measured at fair value on a recurring basis.

Non-recurring fair value measurements

Certain assets are carried on the balance sheets at cost and are not remeasured to fair value on a recurring basis. These assets include finite-lived tangible and intangible assets which are tested for impairment when a triggering event occurs.

The carrying value of the bank loan was not materially different from fair value at December 31, 2014 using level 2 inputs.

6. Accrued taxes

The Company has evaluated sales tax and medical device excise tax exposures in relevant jurisdictions and determined that an accrual of \$317,186 at December 31, 2014 should be recorded for the estimated amount of unbilled and unremitted sales and medical device excise taxes. The Company's estimates of potential liabilities are based on its engagement of third-party experts to calculate the applicable taxes based on the Company's sales data. For the year ended December 31, 2014, the Company recorded \$194,000 to selling, general and administrative expenses related to the Company's estimated unbilled and unremitted taxes related to that year.

Further, the Company has recorded an accrual of \$150,000 at December 31, 2014 for related interest and penalties associated with the estimated unpaid taxes. For the year ended December 31, 2014, the Company recorded \$88,000 to selling, general and administrative expenses related to such exposures.

7. Commitments and contingencies

Leases

In April 2011, the Company entered into an operating lease agreement for its office facilities that initially expired in October 2015. Rent expense under this lease agreement was \$72,804 for the year ended December 31, 2014. The Company is also required to pay its pro-rata share of taxes and common area maintenance. On March 10, 2015, the Company amended the lease agreement extending the term to October 21, 2019.

Lease payments are subject to increases as specified in the lease agreements. Future minimum lease payments, by year and in the aggregate, under non-cancelable operating leases as of December 31, 2014, are as follows:

2015	\$ 71,722
2016	78,331
2017	81,457
2018	84,709
2019	72,936
Total minimum payments	\$389,155

8. Subsequent events

The Company has considered the effects of subsequent events through February 1, 2016, the date the Company's financial statements were available to be issued.

On November 24, 2015, Bioventus LLC, a privately held medical products company, acquired 100% of the membership interest of the Company.

BioStructures, LLC

Statements of financial position

(Amounts in U.S. dollars)

(Unaudited)

	September 30, 2015	December 31, 2014
Assets		
Cash	\$ 796,441	\$ 309,454
Trade accounts receivable, net	1,597,729	1,600,391
Inventory	1,245,542	999,884
Total current assets	3,639,712	2,909,729
Property and equipment, net	134,706	130,488
Intangible assets, net	306,029	355,941
Total Assets	<u>\$ 4,080,447</u>	<u>\$ 3,396,158</u>
Liabilities and Members' Equity		
Accounts payable	\$ 676,784	\$ 740,379
Accrued expenses	249,923	3,674
Loan	350,000	400,000
Accrued taxes	536,900	—
Total current liabilities	1,813,607	1,144,053
Accrued Taxes	—	467,186
Total liabilities	1,813,607	1,611,239
Members' equity	853,588	853,588
Retained earnings	1,413,252	931,331
Total Members' Equity	2,266,840	1,784,919
Total Liabilities and Members' Equity	<u>\$ 4,080,447</u>	<u>\$ 3,396,158</u>

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

BioStructures, LLC

Statements of income and comprehensive income

(Amounts in U.S. dollars)
(Unaudited)

	Nine months ended September 30,	
	2015	2014
Net sales	\$ 9,890,138	\$ 8,369,328
Cost of sales	1,815,840	1,821,234
Gross profit	8,074,298	6,548,094
Selling, general and administrative expense	4,926,053	4,010,237
Research and development	157,390	345,550
Depreciation	30,180	24,224
Operating income	2,960,675	2,168,083
Interest expense	11,899	11,115
Other expense (income)	16,855	(15,943)
Net income and comprehensive income	\$ 2,931,921	\$ 2,172,911

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

Biostructures, LLC
Statement of changes in members' equity
Nine months ended September 30, 2015
(Amounts in U.S. dollars)
(Unaudited)

	Members' equity	Retained earnings	Total members' equity
Balance at December 31, 2014	\$ 853,588	\$ 931,331	\$ 1,784,919
Distributions	—	(2,450,000)	(2,450,000)
Net income		2,931,921	2,931,921
Balance at September 30, 2015	\$ 853,588	\$ 1,413,252	\$ 2,266,840

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

BioStructures, LLC

Statements of cash flows

(Amounts in U.S. dollars)

(Unaudited)

	Nine months ended September 30,	
	2015	2014
Cash flows from operating activities		
Net income	\$ 2,931,921	\$ 2,172,911
Adjustments to reconcile net income to net cash provided by operating activities		
Depreciation and amortization	80,092	71,988
Provision for bad debts	59,435	157
Changes in operating assets and liabilities:		
Trade accounts receivable	(56,773)	6,700
Inventory	(245,658)	(428,759)
Accounts payable and accrued expenses	252,368	448,521
Net cash provided by operating activities	3,021,385	2,271,518
Cash flows from investing activities		
Purchase of property and equipment	(34,398)	(56,729)
License fee and milestone payments	—	(150,000)
Net cash used in investing activities	(34,398)	(206,729)
Cash flows from financing activities		
Borrowings (repayment) of debt	(50,000)	143,900
Member distributions	(2,450,000)	(2,000,000)
Net cash used in financing activities	(2,500,000)	(1,856,100)
Net increase in cash	486,987	208,689
Cash and cash equivalents at the beginning of period	309,454	456,524
Cash and cash equivalents at the end of period	\$ 796,441	\$ 665,213
Supplemental disclosure of cash flow information		
Cash paid for interest	\$ 11,899	\$ 11,115

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

BioStructures, LLC

Notes to financial statements

(Amounts in U.S. dollars)

(Unaudited)

1. Organization and summary of significant accounting policies

Basis of presentation

The accompanying unaudited financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America, or GAAP. In the opinion of management, all adjustments (consisting of normal recurring accruals) considered necessary for a fair presentation of the results of operations for the periods presented have been included. Operating results for the nine months ended September 30, 2015 and 2014 are not necessarily indicative of the results that may be expected for the fiscal year. The balance sheet at December 31, 2014 has been derived from the audited financial statements at that date, but does not include all of the information and footnotes required by GAAP for complete financial statements.

The Company

BioStructures, LLC, or BioStructures or the Company, is a limited liability company formed under the laws of the state of California on August 22, 2007 and operates as a partnership. The Company was owned by two members until the acquisition of the Company by Bioventus, LLC in November 2015 (see Note 8).

BioStructures is a medical device company focused on developing innovation proprietary platforms in bio-resorbable bone graft products for a broad range of spinal surgical applications. The Company's products are developed to benefit the surgeon and their patients during each phase of the bone healing process. BioStructures' bio-resorbable implants are created for best-in-class performance. The synthetic and allograft implants are designed for proportionate resorption to facilitate balanced bone regeneration with optimized clinical efficacy.

Use of estimates

The preparation of the financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, revenues and expenses during the period, as well as disclosures of contingent assets and liabilities at the date of the financial statements. Actual results may differ from these estimates under different assumptions or conditions.

Cash

The Company's cash consists of cash held by a single financial institution in the U.S. in excess of the federally insured limits.

Fair value

The Company records certain assets and liabilities at fair value (discussed further in Note 5). Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants at the measurement date. A three-level fair value hierarchy that prioritizes the inputs used to measure fair value is

described below. This hierarchy requires entities to maximize the use of observable inputs and minimize the use of unobservable inputs. The three levels of inputs used to measure fair value are as follows:

- Level 1—Quoted prices in active markets for identical assets or liabilities;
- Level 2—Observable inputs other than quoted prices included within Level 1, such as quoted prices for similar assets and liabilities in active markets; quoted prices for identical or similar assets and liabilities in markets that are not active; or other inputs that are observable or can be corroborated by observable market data; and
- Level 3—Unobservable inputs that are supported by little or no market data. This includes certain pricing models, discounted cash flow methodologies and similar techniques that use significant unobservable inputs.

Accounts receivable and allowances

Accounts receivables are amounts due from customers and are recorded at net realizable value for product sold in the ordinary course of business. The Company maintains an allowance for doubtful accounts.

The allowance for doubtful accounts is based on the assessment of the collectability of specific customer accounts and the aging of the accounts receivable. When evaluating the adequacy of this allowance, the Company analyzes accounts receivable, historical bad debts, customer concentrations, customer solvency, current economic and geographic trends, and changes in customer payment terms and practices. Changes to the allowance for doubtful accounts are recorded in selling, general and administrative expense in the statement of income and comprehensive income.

Inventory

Inventories are valued at the lower of cost or estimated net realizable value, after provision for excess or obsolete items. All products the Company sells are procured through third-party contract manufacturing arrangements and cost is determined on an average cost basis, which approximates the first-in, first-out, or FIFO, method. The valuation of finished products and consignment inventory includes the cost of materials, labor and packaging costs. Consignment inventory represents finished products located at third parties, such as distributors and hospitals.

Long-lived assets

Property and equipment are stated at cost and are depreciated using the straight-line method over the shorter of the asset’s estimated useful life, or the lease term if related to leased property, as follows (in years):

Automobile	5
Machinery and equipment	3-7
Furniture and fixtures	7

Finite-lived identifiable intangible assets are recorded at cost and are amortized using the straight-line method over their estimated remaining useful lives ranging between 8 and 10 years.

The carrying values of property, equipment, intangible and other long-lived assets are reviewed for recoverability if the facts and circumstances suggest that a potential impairment may have occurred. If this review indicates that carrying values may not be recoverable, as determined based on undiscounted cash flow projections, the Company will perform an assessment to determine if an impairment charge is required to

reduce carrying values to estimated fair value. There were no events, facts or circumstances for the nine months ended September 30, 2015 and 2014 that resulted in any impairment charges to the Company's property, equipment, intangible or other long-lived assets.

Revenue recognition

Sale of products

The Company primarily sells its products to hospitals and recognizes revenue upon notification from the hospital that the product was used in surgery. Accordingly, revenue is recognized when persuasive evidence of an arrangement exists, delivery has occurred, the fee is fixed or determinable, and collection is reasonably assured. Until such time as the product is used in surgery, ownership of the product remains with the Company.

The Company uses a distribution network to deliver its product to hospitals. The majority of the distributors hold the Company's product on consignment until delivered to the hospitals to be used in surgery. In these circumstances, ownership of the product remains with the Company. The Company does sell products directly to distributors who take ownership of the product at the point of shipment. In these circumstances, the Company recognizes revenue upon delivery to such distributors. Accordingly, revenue is recognized when persuasive evidence of an arrangement exists, delivery has occurred, the fee is fixed or determinable, and collection is reasonably assured.

Shipping and handling

The Company classifies amounts billed for shipping and handling as a component of net sales. The related shipping and handling fees and costs as well as other distribution costs are included in cost of sales.

Advertising costs

Advertising costs include costs incurred to promote the Company's business and are expensed as incurred. Advertising costs were \$102,384 and \$107,558 for the nine months ended September 30, 2015 and 2014, respectively.

Research and development

Research and development, or R&D, expenses consists primarily of contract research organization services. Internal R&D costs are expensed as incurred. R&D costs incurred by third parties are expensed as the contracted work is performed. Initial and milestone payments made to third parties in connection with technology license agreements are also expensed as incurred as research and development costs, up to the point of regulatory approval. Payments made to third parties subsequent to regulatory approval will be capitalized and amortized over the estimated remaining useful life of the related product.

Income taxes

The Company is treated as a partnership for U.S. tax purposes. Accordingly, the profits and losses are passed through to the members and included in their income tax returns. The Company makes periodic distributions to its members.

Recently issued accounting standards

In May 2014, the Financial Accounting Standards Board, or FASB, issued guidance that provides a comprehensive new revenue recognition model that requires a company to recognize revenue to depict the

transfer of goods or services to a customer at an amount that reflects the consideration it expects to receive in exchange for those goods or services. The guidance also requires additional disclosure about the nature, amount, timing and uncertainty of revenue and cash flows arising from customer contracts. In August 2015, the FASB approved a one-year deferral of the effective date making this guidance effective for annual and interim periods beginning after December 15, 2018 for private companies. Early application is permitted. This guidance permits the use of either the retrospective or cumulative effect transition method. The Company is currently evaluating the impact this guidance will have on the Company's financial statements.

In July 2015, the FASB issued guidance for simplifying the calculation for subsequent measurement of inventory measured using the first-in-first-out or average cost methods. The guidance is effective for annual periods and interim periods within those annual periods beginning after December 15, 2016, and is effective for the Company for the year ending December 31, 2017. The Company is currently evaluating the impact that the implementation of this standard will have on the Company's financial statements.

2. Balance sheet information

Accounts receivable

Accounts receivable consisted of the following at September 30, 2015:

Accounts receivable	\$ 1,848,308
Less allowance	(250,579)
	<u>\$ 1,597,729</u>

The following table shows the activity in the allowance for doubtful accounts at September 30, 2015:

Beginning balance at December 31, 2014	\$191,144
Charged to operating expenses	<u>59,435</u>
Ending balance at September 30, 2015	<u>\$250,579</u>

The allowance as of September 30, 2015 relates to a specific customer that filed for bankruptcy in June 2015.

Inventory

Inventory consisted of the following at September 30, 2015:

Raw materials and supplies	\$ 226,318
Work-in-process	<u>73,694</u>
Finished goods	<u>945,530</u>
	<u>\$ 1,245,542</u>

Finished goods includes consignment inventory representing immediately saleable finished products that are in the possession of the Company's distributors or located at third-party customers, such as hospitals.

Property and equipment, net

Property and equipment consisted of the following at September 30, 2015:

Automobile	\$ 39,135
Furniture and fixtures	46,775
Machinery and equipment	152,022
	<u>237,932</u>
Less accumulated depreciation	(103,226)
Property and equipment, net	<u>\$ 134,706</u>

Depreciation expense was \$30,180 and \$24,224 for the nine months ended September 30, 2015 and 2014, respectively. The Company assets are pledged as security under a bank loan agreement.

Intangible assets, net and royalty agreements

In July 2009, the Company entered into an exclusive license and supply agreement for the use of bioactive glass in certain of its products. The Company paid a non-refundable technology access fee of \$230,000 in exchange for the world-wide, royalty bearing license for the use of certain developed technologies related to spine repair. The Company is required to pay a royalty of 3% on all commercial sales revenue from the licensed products. In October 2010, the agreement was amended whereby the Company paid \$234,000 as additional consideration, primarily for the right to sublicense. During the nine months ended September 30, 2015 and 2014, the Company incurred royalty expense of \$150,152 and \$101,194, respectively. Royalty expense is included in cost of goods sold. The agreement shall expire in 2019 upon the expiration of the last to expire patents held by the licensor.

In November 2011, the Company entered into a development and license agreement with a third-party, whereby both parties collaborated in the development, pre-clinical and clinical evaluation and commercialization of a product for use in certain orthopedic applications. Pursuant to this agreement, upon receipt of a 510(k) approval for a developed product, both parties agreed to enter into a license agreement for such product. Upon receiving a 510(k) approval in January 2014 for bioactive bone graft putty, the Company paid a \$50,000 milestone payment and in February 2014, the Company entered into an exclusive license agreement with the third-party for the developed product whereby the Company paid \$100,000 as a conversion fee. The Company is required to pay a royalty of 3% on all commercial sales revenue from the license products with a minimum royalty payment of \$60,000 in 2013, \$102,000 in 2014 and \$201,000 annually for the period from 2015 through 2023. During the nine months ended September 30, 2015 and 2014, the Company incurred the minimum royalty expense of \$150,750 and \$76,500, respectively. Royalty expense is included in cost of goods sold. The agreement shall expire in 2023 upon the expiration of the last to expire patents held by the licensor.

Intangible assets are recorded at cost and consisted of the following at September 30, 2015:

License fees	\$ 614,000
Less accumulated amortization	(307,971)
Intangible assets, net	<u>\$ 306,029</u>

Amortization expense related to intangible assets was \$49,912 and \$47,764 for the nine months ended September 30, 2015 and 2014, respectively.

3. Loans

The Company was a party to a loan agreement with a commercial bank with a total borrowing limit of \$2,000,000, with interest payable monthly at LIBOR plus 2.75%. The maturity date of the loan was initially set at August 1, 2013 and was extended in one year increments until paid in full. Outstanding borrowings as of September 30, 2015 were \$350,000. The loan was secured by the assets of the Company and guaranteed by the members. In November 2015, the loan was paid in full and all security interests and guarantees were terminated in connection with sale of the Company (see Note 8).

During 2014, the Company paid in full an outstanding balance of an automobile loan of \$11,391.

4. Members' equity

Members' equity consisted of the following at September 30, 2015:

Members' equity	\$ 853,588
Retained earnings	1,413,252
Total	\$ 2,266,840

The Company is owned by two members and all profits and distributions are shared equally. During the nine months ended September 30, 2015 and 2014, the Company made aggregate cash distributions of \$2,450,000 and \$2,000,000, respectively. On November 24, 2015, the Company was acquired (see Note 8).

5. Fair value measurements

Recurring fair value measurements

There were no material assets or liabilities carried on the accompanying balance sheet at September 30, 2015 measured at fair value on a recurring basis.

Non-recurring fair value measurements

Certain assets are carried on the balance sheets at cost and are not remeasured to fair value on a recurring basis. These assets include finite-lived tangible and intangible assets which are tested for impairment when a triggering event occurs.

The carrying value of the bank loan was not materially different from fair value at September 30, 2015 using level 2 inputs.

6. Accrued taxes

The Company has evaluated sales tax and medical device excise tax exposures in relevant jurisdictions and determined that an accrual of \$370,384 at September 30, 2015 should be recorded for the estimated amount of unbilled and unremitted sales and medical device excise taxes. The Company's estimates of potential liabilities are based on its engagement of third-party experts to calculate the applicable taxes based on the Company's sales data. For the nine months ended September 30, 2015 and 2014, the Company recorded \$49,150 and \$133,000, respectively, to selling, general and administrative expenses related to the Company's estimated unbilled and unremitted taxes related to that year.

Further, the Company has recorded an accrual of \$166,516 at September 30, 2015 for related interest and penalties associated with the estimated unpaid taxes. For the nine months ended September 30, 2015 and 2014, the Company recorded \$16,516 and \$62,000, respectively, to selling, general and administrative expenses related to such exposures.

7. Commitments and contingencies

Leases

In April 2011, the Company entered into an operating lease agreement for its office facilities that initially expired in October 2015. Rent expense under this lease agreement was \$57,690 and \$55,997 for the nine months ended September 30, 2015 and 2014, respectively. The Company is also required to pay its pro-rata share of taxes and common area maintenance. On March 10, 2015, the Company amended the lease agreement extending the term to October 21, 2019.

Lease payments are subject to increases as specified in the lease agreements. Future minimum lease payments, by year and in the aggregate, under non-cancelable operating leases as of September 30, 2015, are as follows:

2015	\$ 18,878
2016	78,331
2017	81,457
2018	84,709
2019	72,936
Total minimum payments	\$336,311

8. Subsequent events

On November 24, 2015, Bioventus LLC, a privately held medical products company, acquired 100% of the membership interest of the Company.

Until _____, 2016 (25 days after the date of this prospectus), all dealers that effect transactions in our securities, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to the dealers' obligations to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.

Shares



Class A Common Stock

P r o s p e c t u s

J.P. Morgan

Stifel

Piper Jaffray

Leerink Partners

, 2016

Part II

Information not required in prospectus

Item 13. Other expenses of issuance and distribution.

The following table sets forth the costs and expenses, other than the underwriting discounts and commissions, payable by the registrant in connection with the sale of Class A common stock being registered. All amounts are estimates except for the SEC, registration fee, the FINRA filing fee and NASDAQ listing fee.

Item	Amount to be paid
SEC registration fee	\$ *
FINRA filing fee	*
Listing fee	*
Printing and engraving expenses	*
Legal fees and expenses	*
Accounting fees and expenses	*
Blue Sky, qualification fees and expenses	*
Transfer Agent fees and expenses	*
Miscellaneous expenses	*
Total	\$ *

* To be filed by amendment.

Item 14. Indemnification of directors and officers.

Section 102 of the Delaware General Corporation Law, or DGCL, permits a corporation to eliminate the personal liability of directors of a corporation to the corporation or its stockholders for monetary damages for a breach of fiduciary duty as a director, except where the director breached his duty of loyalty, failed to act in good faith, engaged in intentional misconduct or knowingly violated a law, authorized the payment of a dividend or approved a stock repurchase in violation of Delaware corporate law or obtained an improper personal benefit. Our amended and restated certificate of incorporation provides that none of our directors shall be personally liable to us or our stockholders for monetary damages for any breach of fiduciary duty as a director, notwithstanding any provision of law imposing such liability, except to the extent that the DGCL prohibits the elimination or limitation of liability of directors for breaches of fiduciary duty.

Section 145 of the DGCL provides that a corporation has the power to indemnify a director, officer, employee or agent of the corporation, or a person serving at the request of the corporation for another corporation, partnership, joint venture, trust or other enterprise in related capacities against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with an action, suit or proceeding to which he or she was or is a party or is threatened to be made a party to any threatened, ending or completed action, suit or proceeding by reason of such position, if such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the corporation, and, in any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful, except that, in the case of actions brought by or in the right of the corporation, no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or other adjudicating court determines that, despite the adjudication of liability but in view of all of the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

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Our amended and restated bylaws provide that we will indemnify each person who was or is a party or threatened to be made a party to any threatened, pending or completed action, suit or proceeding (other than an action by or in the right of us) by reason of the fact that he or she is or was, or has agreed to become, a director or officer, or, while a director or officer, is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise (all such persons being referred to as an "Indemnitee"), or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees), liabilities, losses, judgments, fines and amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding and any appeal therefrom, if such Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, and, with respect to any criminal action or proceeding, he or she had no reasonable cause to believe his or her conduct was unlawful. Our amended and restated bylaws provide that we will indemnify any Indemnitee who was or is a party to or threatened to be made a party to any threatened, pending or completed action or suit by or in the right of us to procure a judgment in our favor by reason of the fact that the Indemnitee is or was, or has agreed to become, a director or officer, or, while a director or officer, is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise, or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees) actually and reasonably incurred in connection with such action, suit or proceeding, and any appeal therefrom, if the Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, except that no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to us, unless a court determines that, despite such adjudication but in view of all of the circumstances, he or she is entitled to indemnification of such expenses. Notwithstanding the foregoing, to the extent that any Indemnitee has been successful, on the merits or otherwise, he or she will be indemnified by us against all expenses (including attorneys' fees) actually and reasonably incurred in connection therewith. Expenses must be advanced to an Indemnitee under certain circumstances.

We have entered into indemnification agreements with each of our directors and officers. These indemnification agreements may require us, among other things, to indemnify our directors and officers for some expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by a director or officer in any action or proceeding arising out of his or her service as one of our directors or officers, or any of our subsidiaries or any other company or enterprise to which the person provides services at our request.

We maintain a general liability insurance policy that covers certain liabilities of directors and officers of our corporation arising out of claims based on acts or omissions in their capacities as directors or officers.

In any underwriting agreement we enter into in connection with the sale of Class A common stock being registered hereby, the underwriters will agree to indemnify, under certain conditions, us, our directors, our officers and persons who control us within the meaning of the Securities Act of 1933, as amended, or the Securities Act, against certain liabilities.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers and controlling persons pursuant to the foregoing provisions, or otherwise, we have been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. Please read "Item 17. Undertakings" for more information on the SEC's position regarding such indemnification provisions.

Item 15. Recent sales of unregistered securities.

On December 22, 2015, the registrant agreed to issue a single share of common stock, par value \$0.001 per share, which will be redeemed upon the closing of this offering, to an officer of the registrant in exchange for \$0.001. The issuance was exempt from registration under Section 4(a)(2) of the Securities Act, as a transaction by an issuer not involving any public offering.

Item 16. Exhibits and financial statement schedules

- (a) **Exhibits.** See the Exhibit Index attached to this registration statement, which is incorporated by reference herein.
- (b) **Financial Statement Schedules.** Schedules not listed above have been omitted because the information required to be set forth therein is not applicable or is shown in the Financial Statements or notes thereto.

Item 17. Undertakings.

The undersigned Registrant hereby undertakes to provide to the underwriters at the closing specified in the underwriting agreement certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

Insofar as indemnification by the Registrant for liabilities arising under the Securities Act may be permitted to directors, officers, and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registration has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer, or controlling person of the Registrant in the successful defense of any action, suit, or proceeding) is asserted by such director, officer, or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by us is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

The Registrant hereby undertakes that:

- (1) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.
- (2) For purposes of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

Signatures

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant has duly caused this Registration Statement on Form S-1 to be signed on its behalf by the undersigned, thereunto duly authorized, in Durham, North Carolina, on this nineteenth day of April, 2016.

Bioventus Inc.

By: _____
Name: Anthony P. Bihl III
Title: Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

Name	Title	Date
_____ Anthony P. Bihl III	Chief Executive Officer and Director (Principal Executive Officer)	April 19, 2016
_____ David J. Price	Chief Financial Officer (Principal Financial Officer)	April 19, 2016
_____ Gregory O. Anglum	Chief Accounting Officer (Principal Accounting Officer)	April 19, 2016

Exhibit index

Exhibit no.	Description
1.1*	Form of Underwriting Agreement
3.1*	Form of Amended and Restated Certificate of Incorporation of Bioventus Inc., to be effective upon the closing of this offering.
3.2*	Form of Amended and Restated Bylaws of Bioventus Inc., to be effective upon the closing of this offering.
4.1*	Specimen Stock Certificate evidencing the shares of Class A common stock.
5.1*	Opinion of Latham & Watkins LLP
10.1*	Form of Tax Receivable Agreement, to be effective upon the closing of this offering.
10.2*	Form of Registration Rights Agreement, to be effective upon the closing of this offering.
10.3*	LLC Agreement of Bioventus LLC, as currently in effect.
10.4*	Form of Second Amended and Restated LLC Agreement of Bioventus LLC, to be effective upon the closing of this offering.
10.5*	Form of Stockholders Agreement, to be effective upon the closing of this offering.
10.6*#	Employment Agreement by and between the Company and Anthony P. Bihl III
10.7*#	Employment Agreement by and between the Company and David J. Price
10.8*	First Lien Credit Agreement, dated as of October 10, 2014, among Bioventus LLC, J.P. Morgan Chase Bank, N.A., as administrative agent, and the lenders thereto.
10.9*	Second Lien Credit Agreement, dated as of October 10, 2014, among Bioventus LLC, J.P. Morgan Chase Bank, N.A., as administrative agent, and the lenders thereto.
10.10	Amended and Restated Exclusive Distribution Agreement between Seikagaku Corporation and Bioventus LLC, restated as of May 4, 2012.
10.11*#	Employment Agreement by and between the Company and Henry C. Tung, M.D.
10.12*#	Bioventus LLC Management Incentive Plan
10.13*#	Bioventus LLC Phantom Profits Interest Plan, as amended and restated
21.1*	List of subsidiaries of Bioventus Inc.
23.1*	Consent of PricewaterhouseCoopers LLP as to Bioventus LLC.
23.2*	Consent of PricewaterhouseCoopers LLP as to BioStructures, LLC.
23.3*	Consent of Latham & Watkins LLP (included in Exhibit 5.1)
24.1	Power of Attorney (included on signature page of the initial filing of the Registration Statement)

* To be filed by amendment.

Indicates management contract or compensatory plan.

**AMENDED AND RESTATED EXCLUSIVE DISTRIBUTION
AGREEMENT**

BETWEEN

SEIKAGAKU CORPORATION

AND

BIOVENTUS LLC

RESTATED AS OF MAY 4 , 2012

**AMENDED AND RESTATED EXCLUSIVE DISTRIBUTION
AGREEMENT**

Amended and Restated Exclusive Distribution Agreement, as restated to include all amendments in effect as of May 4, 2012 (the “Effective Date”), (as so restated, this “Agreement”) by and between BIOVENTUS LLC, a Delaware limited liability company having its principal place of business at 4721 Emperor Boulevard, Durham, NC 27703 (“Distributor”), and SEIKAGAKU CORPORATION, a Japanese corporation having its principal place of business at Marunouchi Center Building, 6-1, Marunouchi 1-chome, Chiyoda-ku, Tokyo 100-0005, Japan (“Company”). Distributor and Company are sometimes referred to herein individually as a “Party” and are sometimes referred to herein collectively as the “Parties.”

RECITALS

A. Company has developed and has produced in Japan over 20 years a hyaluronic acid (“HA”) product and has obtained or is going to obtain the following marketing authorizations in some regions outside Japan for the Products which is more specifically defined in Section 22 and now wishes to appoint a distributor to certain regions for such Products: [***].

B. Company and SMITH & NEPHEW, INC. entered into an Exclusive Distribution Agreement on January 1, 1999 (“EDA”) and amendments and supplements to the EDA thereafter (hereinafter, the EDA and any and all amendments and supplements thereto shall be collectively referred to as “Existing Agreements”), under which the Company appointed SMITH & NEPHEW, INC. as the exclusive distributor of SUPARTZ, the Company’s HA product, in certain territories.

C. SMITH & NEPHEW, INC. has assigned all of its rights and an obligation under the Existing Agreements to Distributor and Company has consented to said assignment.

D. Company and Distributor desire to enter into this Agreement as the Amended and Restated Exclusive Distribution Agreement which supersedes and replaces the Existing Agreements.

E. Distributor wishes to obtain the exclusive right to distribute and sell the Product throughout the Territory as specified in Section 2 hereof, and Company wishes to grant such right to Distributor, on the terms and conditions set forth in this Agreement.

F. Distributor also wishes to purchase the Product from Company, and Company wishes to supply the Product to Distributor on the terms and conditions set forth in this Agreement.

G. Unless defined elsewhere in this Agreement, capitalized terms used in this Agreement shall have the meanings set forth in Section 22.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission.
Confidential treatment has been requested with respect to the omitted portions.

NOW, THEREFORE, in consideration of the mutual covenants and agreements of the Parties contained in this Agreement, the Parties agree as follows:

1. APPOINTMENT AS EXCLUSIVE DISTRIBUTOR

Subject to the terms of and conditions of this Agreement, Company hereby appoints Distributor as its sole and exclusive distributor and grants Distributor the exclusive right to market, distribute and sell the Product in the Territory during the Term of this Agreement, and Distributor hereby accepts such appointment. Distributor may appoint as subdistributors wholly-owned subsidiaries of Distributor, upon prior written notice to Company. Distributor may appoint other third parties as subdistributors from time to time for the sale of the Product; provided, however, that Distributor shall notify Company of the name, address and outline of the business of such third party subdistributors and whether Distributor has an equity interest in such subdistributors in writing and obtain the approval of Company in writing prior to appointment, such approval not to be unreasonably withheld, delayed or conditioned on terms not directly related to the third party subdistribution arrangements. The terms and conditions of the agreement between Distributor and each subdistributor shall conform to the provisions of this Agreement, and Distributor shall require the subdistributors to observe the duties of Distributor as provided for in this Agreement, to the extent applicable.

2. EXCLUSIVE RIGHTS AND TERRITORY

(a) Distributor shall have the sole and exclusive right to market, promote, distribute and sell the Product in the United States (the “Territory”).

(b) Distributor may submit to Company a business plan to market, promote, distribute and sell the Product in [***] within [***] of the LOA Effective Date. Company shall promptly notify Distributor if and when Company obtains regulatory approval necessary for sale of the Product in [***]. Distributor may submit to Company a business plan to market, promote, distribute and sell the Product in [***] within [***] of the date it receives such notice. If Company approves of a business plan that Distributor submits under this Section 2(b), then the Parties shall amend this Agreement to include within the definition of Territory in Section 2(a) the country ([***]) to which the approved business plan relates. Approval by Company of a business plan pursuant to this Section 2(b) shall not be unreasonably withheld, delayed or conditioned [***]. In the event that the Agreement is amended to include [***],

(i) Section 4(a) shall also be amended to provide for a Purchase Price equal to [***] percent ([***]%) of the Average Sales Price per Unit for Units sold outside the United States, but not less than (US) \$[***] per Unit in any situation ([***]), and (ii) Section 4(j) shall also be added to provide that, with respect to Products sold outside of the United States and denominated in a foreign currency, the Net Sales attributable thereto shall be converted from such foreign currency into United States Dollars by utilizing the “Noon Fed Fixing Rate” announced by the Federal Reserve for the average of the first and last day of the reporting period. At Distributor’s request in connection with its preparation of a business plan for [***], and [***], the Parties shall negotiate in good faith a reduction in the foregoing minimum price per Unit based upon market conditions applicable to such country.

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(c) During the Term of this Agreement, [***] unless (i) [***], and (ii) [***].

3. GENERAL TERMS OF SUPPLY

(a) During the Term of this Agreement, Company shall deliver and supply Units to Distributor, according to and in conformity with the shipping instructions of Distributor's purchase order for same.

(b) Orders for Units placed by Distributor shall be made by Distributor issuing to Company a purchase order which specifies (i) quantities and destination(s) of Units to be shipped, (ii) delivery dates at least [***] ([***)] days after the date of such purchase order, (iii) particulars of warehouses in [***] area, where the delivery of Product in question shall be made, and (iv) transport means (air or sea). If Company becomes aware of an event of Force Majeure, or any other event that it expects would prevent it from supplying Units ordered or forecasted to be ordered by Distributor on the specified delivery date(s), Company shall promptly notify Distributor. Provided, however, nothing contained in this Section 3(b) shall relieve Company of liability for failure to supply Product as required by an actual purchase order, except as excused for Force Majeure. Company will try, with [***], to fill purchase orders placed by Distributor with delivery dates less than [***] days from the date of the purchase order, however, the actual delivery dates in this case shall be decided by Company in its sole discretion. In any such event, Company will confirm in writing the purchase order issued by Distributor, regardless of whether it is with regular or shorter delivery dates and each such purchase order shall become binding on both Parties upon and according to the confirmation in writing by Company.

(c) During the Term of this Agreement, Distributor shall provide Company with a [***]rolling order and delivery forecast [***] (the "Annual Forecast") in Dollars and Units ([***)] each [***]. In accordance with the terms and conditions of this Agreement, Distributor shall purchase [***] the Units indicated on the Annual Forecast in the forecasted year as a minimum purchase quantity. Company shall use its [***] supply Units [***] of the Annual Forecast, if so required by the purchase orders of Distributor. Notwithstanding any other term of this Section 3(c), to the extent that a failure to meet the purchase requirements set forth in this Section 3(c) can be reasonably attributed to [***], including [***], then the Parties shall negotiate in good faith an appropriate reduction in the minimum purchase quantity or other appropriate means to offset the impact of the Negative Developments.

(d) After termination of this Agreement, Distributor shall cease promoting, distributing and selling the Product anywhere in the world, except for its promotion, distribution and sale of any Products remaining in its inventory as of the date of such termination within [***] of the termination.

4. PRICE AND PAYMENT TERMS

(a) During the Term of this Agreement, the purchase price payable by Distributor to Company for each Unit ("Purchase Price") shall be equal to [***] percent ([***)%) of the Average Selling Price per Unit, but not less than (US) \$[***] per Unit in any situation ([***)).

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The “Average Selling Price per Unit” is defined as (i) Net Sales for each Period divided by (ii) “Net Units Sold” in the same Period. “Period” shall mean the period consisting of [***], which will be announced by Distributor for each [***]. A [***] consists of [***] ([***) Periods. “Net Units Sold” shall mean the total number of Units sold by Distributor to third parties ([***]), less [***] returns of Units. The purchase price hereunder shall be settled in U.S. currency. Notwithstanding any other provision of this Section 4(a), to the extent that Negative Developments can be [***], then at any time thereafter Distributor may request that the Parties negotiate in good faith an appropriate reduction of the minimum purchase price or other appropriate means to offset the impact of the Negative Developments.

(b) For purposes of calculating the Average Selling Price per Unit, Distributor shall provide Company with a statement (the “Statement”) (i) describing the calculation of the Net Sales from the gross sales, and (ii) Net Units Sold from the total number of Units sold; with a description of each numbers and amounts of the items reducible pursuant to Section 4(a), which were accrued during each Period, for each of the United States and the countries outside the United States no later than [***] ([***) days after the Period in question.

(c) (i) Within [***] ([***) days after the [***] (defined below) in question, Company shall provide a written summary on [***] for the [***] and the [***].

“[***]” shall mean [***].

(ii) Within [***] ([***) days after Distributor’s receipt of Company’s summary above, Distributor shall [***]. Such [***]. If Distributor disagrees, both Parties shall enter into good faith discussion to settle the Adjustment.

(iii) Upon [***], either of Company or Distributor, who [***], shall provide the other Party with [***], which shall [***], for [***], for [***].

(iv) The notices to be made under this Section 4 between the Parties may be made by e-mail with work files, which shall be followed by written notices satisfying the requirements of Section 17.

(d) Company shall have the right to appoint an independent public accountant, reasonably acceptable to Distributor to verify Distributor’s calculation of Net Sales, Net Units Sold and Average Selling Price per Unit (the “Audit”). In the absence of any intentional misstatement of material fact by Distributor, Company shall bear the cost of such Audit unless Distributor’s calculation of the Net Sales, Net Units Sold or Average Selling Price per Unit is more than [***] percent ([***)% lower than the amounts determined by the Audit, in which case [***].

(e) Company shall [***]. Distributor shall [***].

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(f) The Purchase Price for the Product shall be based on sales terms of [***] ([***]) (Incoterms 2010), subject to the following provisions of this Section 4(f). Title, ownership, and risk of loss of the Product shall pass to Distributor upon [***]. The Parties shall cooperate in processing all claims for loss or damage to the Product. For purposes of the foregoing, the Parties intend and agree that “[***]” shall mean that (A) Company shall bear the cost, risk and responsibility to: (i) [***], (ii) [***], and (iii) [***] and (B) prior to each delivery by Company, Distributor shall bear the cost, risk and responsibility to notify Company: (i) [***], (ii) [***], and (iii) [***]. Thereafter, Distributor shall be responsible for all costs it incurs to ship the Product from the designated warehouse to the United States or other locations, including, but not limited to, freight, insurance, terminal handling charges and U.S. import customs’ fees. If and insofar as the Parties’ intended meaning of “FCA (warehouse in Greater Tokyo Area designated by Distributor)” is inconsistent with or contrary to the definition of such term in Incoterms 2010, the Parties’ intended meaning, as detailed above, shall apply.

(g) Company shall invoice Distributor for each shipment separately and shall reference the applicable Distributor purchase order number, mode of transportation, date of shipment payment terms.

(h) Payment terms for purchases of Product by Distributor shall be net [***] ([***]) days from the date of Company’s invoice by wire-transfer to Company’s bank account designated on the invoice. Distributor shall pay Company a late charge of [***] percent ([***]%) per month for all payments made after the payment deadline as provided in the immediately preceding sentence.

Notwithstanding any other provision of the Agreement, SMITH & NEPHEW, INC. guarantees to Company the complete payment of the Purchase Price for the Product by Distributor within forty-five (45) days of the delivery of the Product. If Company has not received the Purchase Price for the Product from Distributor within forty-five (45) days of the delivery of the Product to Distributor, then SMITH & NEPHEW, INC. is obligated to pay the Purchase Price directly to Company. This guarantee expires two (2) years from the LOA Effective Date, and is a continuing obligation of SMITH & NEPHEW, INC. for such two (2) year period regardless of any permitted assignment of the Agreement by SMITH & NEPHEW, INC.

(i) Distributor shall have absolute discretion to determine its own sale prices for the Product.

5. PRODUCT SPECIFICATIONS; QUALITY CONTROL; REGULATORY MATTERS AND COMPLIANCE WITH LAW

(a) Company shall (i) manufacture the Product in strict accordance with the quality specifications described in the Registration Dossier(s), which is exactly disclosed in ANNEX A attached herewith, or in effect from time to time in the applicable Territory, and other additional specifications agreed to by the Parties from time to time, when additional specifications are written as amendments to ANNEX A as provided in Section 5(b) below and (ii) package and label the Product in accordance with the packaging and labeling requirements decided by the Parties as provided in the Section 12(c) and added later to this Agreement as ANNEX B (collectively, the “Specifications”). Either Party shall have the right to request a change to the

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Specifications at any time during the Term of this Agreement. In such event, the Party wishing to request a change (the “Requesting Party”) shall notify the other Party (the “Receiving Party”) of its request in writing. If the Receiving Party agrees to such request, the Parties shall cooperate with each other, in good faith, to have such change to the Specifications approved in each applicable country in the Territory, and Company shall maintain sufficient inventory of the original Product to supply Distributor until the change in Specifications is so approved and the new Product can be marketed and sold. In the event of a dispute between Company and Distributor concerning the change of Specifications relating to the formulation or the manufacturing of the Product, then Company shall make the final decision. In the event of a dispute between Company and Distributor concerning change of packaging or labeling, then Distributor shall make the final decision unless such change is not cost effective or feasible, in Company’s opinion. If any regulatory agency having jurisdiction in any country in the Territory requires a change to the Specifications, Company shall use its [***] to make such changes, with respect to the Products sold in the affected jurisdiction, unless such change is not cost effective or feasible as determined mutually by the Parties. If Company cannot make such change the Product shall not be sold by either Party in that jurisdiction. All expenses incurred with respect to a change in the Specifications required by a regulatory agency with respect to the sale or use of the Product in the Territory will be [***]. All expenses incurred with respect to a change in the Specifications required by a regulatory agency outside the Territory will be [***]. All expenses incurred in connection with any and all changes to Specifications except those changes to Specifications required by the FDA, or similar regulatory agency of any country in the Territory, shall be [***]. If [***] is the Requesting Party and such change in Specifications would [***], then Distributor shall [***].

(b) All changes to Specifications allowed by the provisions in Section 5(a) made subsequent to the Effective Date of this Agreement, must be made in the form of a written amendment to ANNEX A or ANNEX B.

(c) Company shall conduct quality control testing of the Product prior to shipment in accordance with the Specifications and regulatory requirements with respect to the Product as are in effect from time to time in the Territory, and such other validated quality control testing procedures agreed to by the Parties from time to time (the “Testing Methods”). Company shall retain records pertaining to such testing for a minimum of [***] ([***) years following the expiration date of life of the Product.

(d) Company shall provide Distributor with a certificate of analysis of each shipment of Product made to Distributor. Nothing contained herein shall waive Distributor’s rights with respect to latent defects or with respect to Distributor’s rights under the representation and warranty provisions of this Agreement.

(e) Distributor shall notify Company and all applicable regulatory authorities in writing of reportable events involving the Product for which Distributor receives appropriate notification, as required by applicable Laws, including, without limitation, Medical Device Reports under the Post Market Surveillance program of the FDA, and maintain the files of these reports and investigations as required by applicable Laws. Company shall likewise notify

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Distributor in writing of any of such reportable events, including, if and to the extent required in connection with applicable Laws in the Territory, Device Vigilance Reports required by the countries of the European Union. The reporting Party shall notify the other within a reasonable time in a manner consistent with the requirements of the Law in the applicable jurisdictions.

(f) Each Party shall communicate to the other regarding any complaints received from users of the Product or Product-Drug, within a reasonable time following receipt of each complaint. Each notification of a complaint shall contain, but shall not be limited to, the lot number, expiration date, indication for actual use and description of circumstances involved in the alleged failure of the Product, to the extent such information is available. Each Party will provide additional information to the other Party as it becomes available. If Distributor receives the Product associated with a complaint relating to the performance of a Product, Distributor will mail the Product to Company via express courier for evaluation of the Product and investigation of the complaint by Company. Company shall investigate the complaint and report to Distributor the results of the investigation and decision made concerning corrective actions and detailed information concerning the corrective actions taken, if any.

(g) Each Party agrees to notify the other Party as soon as practical of any information of which it becomes aware which relates to the safety or efficacy of the Product or Product-Drug. Upon receipt of any such information, the Parties shall consult with each other in an effort to arrive at a mutually agreeable course of action that is consistent with the obligations of the Parties under this Agreement.

(h) (1) If a Party is notified by a governmental agency that a Product or Product-Drug recall or other general corrective action with respect to the Product or Product-Drug is necessary it shall immediately advise the other Party in writing of such notification by such governmental agency, and proceed with the recall or corrective action as instructed by such governmental agency.

(2) In the event either Company or Distributor believes in good faith (without notification by a governmental agency) that a Product or Product-Drug recall or other general corrective action with respect to the Product or Product-Drug is necessary or appropriate ("Proposed Recall"), the Party advocating the Proposed Recall shall notify the other Party in writing regarding its belief in this regard, and provide the other Party with a complete written explanation of the reason(s) for its belief regarding such Proposed Recall. As soon as reasonably possible following delivery of the written explanation, the Parties will mutually determine what actions are appropriate regarding such Proposed Recall. If the Parties cannot agree upon such actions, then this matter will be [***]. Distributor will keep detailed distribution records for each lot number detailing the quantity shipped and the location where the lot was shipped as required by Law so that in the event of recall, Distributor will be able to contact the consignees.

(3) In the event any recall or general corrective action is taken with respect to the Product or Product-Drug, whether ordered by a governmental agency or otherwise, [***] in good faith the cause(s) of the non-conformance(s) prompting the recall or general corrective action within the time required by the applicable Law, but no later than [***] ([***]) days after

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the date of such recall or general corrective action, in order to establish preventive measures for the future and to assess responsibility for costs and expenses arising from the recall. At the end of this [***] ([***)] day period following the recall or general corrective action, the matter of costs and expenses will be submitted to the Presidents of Distributor and Company for their joint resolution. If the matter cannot be resolved by the Presidents of Distributor and Company within [***] ([***)] days after it has been submitted to them, either Party may initiate arbitration pursuant to Section 16.

(i) Each Party covenants that all of its activities (and the activities of its suppliers in the case of Company, and in the case of Distributor, the activities of Distributor's subdistributors under or pursuant to this Agreement) shall comply with all applicable laws, ordinances, statutes, rules and regulations (collectively "Laws"), including, without limitation, Laws arising under the federal Food, Drug and Cosmetic Act, the Safe Medical Device Act and their respective amendments.

(j) Distributor and Company shall have the right to visit each other's facilities where the Product is manufactured, stored or delivered [***] during the Term of this Agreement and for the purposes of performing an audit of the operations, facilities and records concerning the manufacturing procedures, and storage and distribution (including shipping and handling) of the Products of the other Party; provided, however, that such visits shall not give access to the other Party's proprietary technology and shall be restricted to only those persons who are directly involved in determining compliance with the terms of this Agreement and who, as provided below, received a prior written approval of other Party and that each Party shall be required to furnish to the other Party only that information necessary to make a determination of the other Party's compliance with the terms of this Agreement. Such visits shall be conducted upon written notice received at least [***] prior to the visit and during normal business hours; provided that the person who will perform the audit received the prior written approval of the other Party prior to such visit, such approval not to be unreasonably withheld or delayed. The Party who requests the audit shall select and retain at its discretion and its own cost the auditor or auditing consultant who shall conduct or otherwise assist such Party in performing the audit.

(k) (i) [***] Company shall obtain, by using the data it holds as of the Effective Date, the regulatory approval for the marketing, sale, distribution and use of the Product in the Territory at [***] and Distributor shall assist such efforts of Company.

(ii) If additional clinical trials must be conducted in order for Distributor to market, sell, distribute or use the Products in any country in the Territory or if FDA Approval contains conditions that [***] ("FDA Conditions"), then the Parties shall negotiate in good faith whether to proceed with the additional clinical trials and the responsibility for payment therefor.

(iii) If the Parties are unable to agree upon the need for or payment for additional clinical trials or the satisfaction of FDA Conditions, then [***].

(iv) Even in the case where Distributor [***], Company shall assist Distributor for completion of the clinical trials and satisfaction of the FDA Conditions [***] and shall, under

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cooperation of Distributor, file the application of the regulatory approval or satisfaction of the FDA Conditions for the marketing, sale, distribution and use of the Product in such country and obtain such approval.

(v) The [***] shall be [***], may be [***] and may be [***].

(vi) If the Parties are [***], then [***] to the other Party. If the FDA Approval contains conditions that are not reasonably acceptable to Distributor, but are not able to be [***], then Distributor shall have the right to [***] to Company.

(l) Each Party will be granted rights to access, make reference to, and use the clinical data and regulatory filings owned by the other Party relating to the Products or Product-Drug other than Confidential and proprietary clinical data or regulatory filings of Company related to the manufacture of Products which Company shall not be obligated to provide to Distributor, but shall be obligated to provide to legal or regulatory agencies or bodies.

(m) Each Party will inform the other within a reasonable period of time as it becomes aware of any new version or amendment to any Laws which may materially affect the procedures, process, practice or activities with respect to the import, marketing, sale or use of the Product in the Territory or the manufacture of the Product.

(n) If despite reasonable efforts of a Party under Section 6(d) or Section 8(d) below, [***], Distributor and Company agree that such event shall not be deemed to constitute a breach of Section 6(d) or Section 8(d) below, respectively.

6. COMPANY'S GENERAL OBLIGATIONS

(a) During the Term of this Agreement, Company agrees to provide Distributor with the following at Company's cost in order to assist Distributor's promotional activities for Product in the Territory. Company shall have the right to hold a meeting with Distributor at the time and place to be agreed upon by the Parties to discuss alternative activities.

(i) Reasonable quantities of promotional materials and literature in English as requested by Distributor.

(ii) Medical and commercial advice and information to assist Distributor in responding to inquiries and questions made concerning the Product by other Persons, including, customers and governmental authorities.

(iii) Technical and marketing training on the Product at a designated facility of Company for reasonable, but limited number of, Distributor's competent technical and sales representatives at times and for durations to be agreed upon by the Parties; provided, however, [***] out-of-pocket costs for such training of Distributor's representatives and employees such as travelling, lodging and insurance are to be [***].

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(b) Company shall maintain ISO 13485 and Medical Device Directive certification to support the right to continue to use the CE mark in commerce on the Product, but only if maintaining ISO 13485 and Medical Device Directive certification is required to sell the product in the Territory.

(c) Company will maintain the CE marked status for the Product for the countries covered by the CE mark and maintain all certificates and approvals required in the European Union, but only if maintaining CE marked status for the Product is required to sell the Product in the Territory.

(d) Company shall [***]. Company shall [***].

(e) [***]. For purposes of clarity, [***].

(f) In accordance with Distributor's request and pursuant to Section 6(a) above, Company shall prepare and file all regulatory filings as may be required in the Territory to replace SMITH & NEPHEW, INC's name, logo and other identifying details of the Product label with those of the Distributor.

7. COMPANY'S REPRESENTATIONS AND WARRANTIES

Company hereby represents and warrants to Distributor as follows:

(a) Company is a corporation duly organized, validly existing and in good standing under the laws of Japan and has all requisite corporate power and lawful authority to own, lease and operate its assets and to carry on its business as heretofore conducted. Company has the full legal right, corporate power and authority to execute and deliver this Agreement and the other agreements contemplated hereby and to consummate the transactions contemplated hereby and thereby. This Agreement has been duly executed and delivered by Company and constitutes the valid and binding obligation of Company, enforceable against Company in accordance with its terms, except as such enforceability may be limited by bankruptcy, insolvency, reorganization or similar laws affecting creditors' rights generally or by general equitable principles.

(b) Company owns all rights, title and interest in the Product necessary to grant the rights contained in this Agreement to Distributor. To [***], the Product does not and will not infringe upon any patent, trademark, trade secret or other proprietary right of any person. Nothing contained in this Agreement is in conflict with any other agreement to which Company is a party or is otherwise bound.

(c) Company has not granted and will not grant the right to market, sell or distribute the Product or Product-Drug in the Territory to any other Person.

(d) At the time of delivery to Distributor, all Products (i) shall have been manufactured (A) in conformance with Good Manufacturing Practices (as such term is generally understood in the medical device and pharmaceutical industry), and (B) in accordance with all Laws; and (ii) shall be free of all valid liens, encumbrances and security interests.

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(e) Company shall promptly replace any Product which fails to meet Specifications, or is misbranded (except to the extent such misbranding occurs as a result of the acts or omissions of Distributor) or which is otherwise defective, whether the Product is owned at the time of such event by Distributor or a third party not under the control of Company. This warranty shall not apply to any Product which has been misused, improperly stored, adulterated or modified by Distributor or any of its subdistributors.

(f) If CE Marking Certificate is required for sale of the Product in the Territory, then Company represents and warrants that the CE Marking Certificate for distribution of the Products in Europe has been obtained and is in full force and effect.

(g) At the time of delivery to Distributor, all Products shall be “merchantable” as defined in Section 2-314 of the Uniform Commercial Code, but only to the extent such warranty would be implied. All other implied warranties at law between the Parties are hereby disclaimed.

8. DISTRIBUTOR’S GENERAL OBLIGATION

During the Term of this Agreement,

(a) Distributor shall, and Distributor shall have its permitted subdistributors, transport, store, distribute, market and sell the Product in accordance with directions for storage and use as indicated on ANNEX A including any amendments thereto (as provided in Section 5(a) herein) which are in effect at the time of such transport, storage, distribution, marketing or sales.

(b) Distributor shall exert its [***] to sell, distribute and promote the sales of the Product in the Territory in order to achieve the annual minimum purchase quantities as provided for in Section 3(c) hereof and agrees to provide Company with the following information in English (subject to occasional missing or incomplete information or delayed or undelivered communications, as may occur):

(i) Safety information relating to the Product including data, report or other information relating to its side effect in the Territory, if any.

(ii) [***] sales and inventory records and marketing reports of Products in the Territory with substantially comparable detail as are currently being provided to Company as of the LOA Effective Date, within [***] ([***) days from the last day of each Period (as such term is defined in Section 4(a) above), including claims, complaints, questions and comments from customers relating to quality, performance and effect of Product, if any.

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(iii) Except as prohibited by applicable Law, and to the extent consistent with the information being provided to Company by Distributor as of the LOA Effective Date, any and all market, marketing, business and technical information as may be reasonably requested by Company from time to time.

(c) Distributor will provide Company with reasonable access to records for purposes of conducting quality control audits and to effect a product recall, if necessary, as provided hereunder.

(d) Distributor shall [***]. Distributor shall [***].

(e) In consideration of the exclusive right granted hereunder Distributor shall not, during the Term of this Agreement, promote, sell or distribute the Product in the Territory, except for Products purchased from Company.

(f) Distributor shall prepare in good faith and provide Company with the first draft of a business plan for the Product for the following business year no later than [***] of each calendar year. The Parties shall enter into sufficient good faith discussion based on such first draft. After considering such discussion with Company in good faith, no later than December 31 of each calendar year, Distributor shall complete, and provide Company with, the business plan for the Product for the following business year. Distributor shall discuss with Company whether it is appropriate to amend such business plan on a [***] after providing Company with relevant information pursuant to Section 8(b). For avoidance of doubt, this paragraph requires communication and discussion as provided, but does not restrict Distributor's discretion with regard to all decisions and matters concerning the development, amendment or implementation of Distributor's business plan.

(g) In connection with the re-labeling of Products, in order to prevent any occurrence of problems such as shortage of stock, Distributor shall [***] sell off any and all existing SUPARTZ products in the inventory that are in proper condition for sale and convert the packages for SUPARTZ products to Distributor's packages at [***] cost, and use [***].

(h) Distributor and Company each agrees that they shall hold the following meetings in order to maintain good business relationships between them and to further expand the SUPARTZ business (subject to occasional postponements, missed meetings or cancellations as may occur):

- 1) Top management meeting ([***]);
- 2) [***] business meeting ([***]); and
- 3) Teleconference ([***])

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9. DISTRIBUTOR'S REPRESENTATIONS AND WARRANTIES

Distributor hereby represents and warrants to Company as follows:

(a) Distributor is a limited liability company duly organized, validly existing and in good standing under the laws of the State of Delaware and has all requisite corporate power and lawful authority to own, lease and operate its assets and to carry on its business as heretofore conducted. Distributor has the full legal right, corporate power and authority to execute and deliver this Agreement and the other agreements contemplated hereby and to consummate the transactions contemplated hereby and thereby. This Agreement has been duly executed and delivered by Distributor and constitutes the valid and binding obligation of Distributor, enforceable against Distributor in accordance with its terms, except as such enforceability may be limited by bankruptcy, insolvency, reorganization or similar laws affecting creditors' rights generally or by general equitable principles.

(b) Nothing contained in this Agreement is in conflict with any other agreement to which Distributor or its Affiliates is or may become a party or is otherwise bound.

(c) Distributor shall distribute, market, and sell the Product in accordance with the Laws of the Territory. Company agrees to provide Distributor with all information and assistance required in order for Distributor to comply with the foregoing obligation to the extent reasonably possible.

10. TRANSFER OF DATA; CONFIDENTIALITY

(a) The Parties acknowledge that Company has or is in the process of conducting studies on the Product or Product-Drugs necessary to register the Product for marketing and sales in the Territory. No later than [***] ([***)] days after the execution and delivery of this Agreement, Company shall deliver to Distributor copies of a detailed summary of pre-clinical and clinical studies on Product or Product-Drugs and other similarly detailed data in Company's possession or control as of such date which Company and Distributor reasonably determine is relevant to the safety, efficacy, regulatory status, sale, marketing or distribution of the Product.

(b) During the Term of this Agreement: (i) Company shall provide to Distributor any subsequently acquired data which Company and Distributor reasonably determine is relevant to the safety, efficacy, regulatory status, sale, marketing or distribution of the Product or Product-Drug; and (ii) each of the Parties shall deliver to the other Party all relevant data and Registration Dossier(s) relating to use of the Product or Product-Drug, and results from any studies being conducted by or on behalf of either Party in connection therewith promptly after such data and/or Registration Dossier(s) become available.

(c) The Parties acknowledge that discussions between Company and Distributor in written form and orally will necessarily require the exchange of information that is considered confidential and proprietary by the disclosing Party. The Parties agree that any information on which the disclosing Party designates the mark "confidential" in the written form or in a written confirmation made within thirty (30) days from the oral disclosure shall be considered "Confidential Information" and shall include, without limitation, (i) the Know-How; (ii) earnings, costs, and other financial information; (iii) drawings, formulations, samples, technical data, photographs, specifications, manufacturing methods, testing procedures, clinical studies data; and (iv) marketing, sales and customer information relating to the disclosing Party's business.

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(d) The Parties agree that both during the Term of this Agreement and for a period of [***] ([***)] years thereafter each Party shall keep, and shall cause the directors, officers, employees and agents of such Party or its Affiliates or third party subdistributors to keep, confidential any and all Confidential Information acquired from the other Party to the same extent as such Party protects its own confidential information, and shall not use for any other purpose than to discharge such Party's obligations and exercise its rights hereunder.

(e) Confidential Information shall not include information which (i) is or hereafter becomes available to the general public other than by reason of any default with respect to a Party's confidentiality obligation hereunder, (ii) is demonstrated by documentary evidence to have been known at the time of receipt thereof by the receiving Party, (iii) can be shown to have been developed or acquired independently without breach of any obligations contained herein, or (iv) is required to be disclosed as a result of a judicial order or decree or applicable Law or regulation; provided however, that the Party whose Confidential Information is the subject of such judicial order or decree is given the opportunity to contest the judicial order or decree prior to any disclosure.

11. PATENTS AND PROTECTION OF DISTRIBUTOR'S RIGHT TO DISTRIBUTE PRODUCT AND PRODUCT DRUG

(a) Patent Prosecution.

(i) Company will file, prosecute and maintain patents within the Territory relating to the Product packaging, use or sale (but not manufacture) of the Product ("Patents") as Company may elect. If Company elects not to file, prosecute or maintain a Patent in any country in the Territory, then Company shall notify Distributor. Distributor shall have the right, within [***] ([***)] days following receipt of Company's notice, to assume responsibility for filing, prosecuting or maintaining such Patent, which Patent shall be considered a "Distributor Sponsored Patent." Distributor Sponsored Patents are considered Patents under this Agreement, except where expressly provided herein to the contrary.

(ii) Company hereby grants to Distributor an exclusive royalty-free non-transferable license to use the Patents (subject to the Confidentiality provisions of Section 10 herein) in the Territory in connection with the marketing, distribution and sale of the Product. Distributor shall acknowledge the Patents (pending or granted) in Distributor's labeling and promotional materials relating to the Product.

(iii) All costs and expenses incurred with respect to the filing, prosecution and/or maintenance of Patents (other than Distributor Sponsored Patents) shall be paid by Company, including all reasonable costs for the prosecution, issuance and maintenance of Patent applications and Patents issuing thereon, and any divisional, continuations, continuation-in-part, reissue applications or Patents, Patents of addition, Patents of revalidation or the registrations or any Patent or the like.

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(iv) Company shall cooperate and assist Distributor in the filing, prosecution and maintenance of Distributor Sponsored Patents. Distributor shall own all Distributor Sponsored Patents.

(b) Patent Enforcement and Enforcement of Distributor's Right to Distribute Product.

(i) If any of the Patents in the Territory are infringed by a third party, the Party which discovers the infringement shall promptly notify the other Party in writing. The Parties shall [***] with enforcement of rights against the infringer and the division of any awards or settlement payments. [***]. The Parties shall keep each other informed as to the prosecution of any action for such infringement. The Parties shall cooperate with each other with respect to any such action.

12. TRADEMARKS

(a) (i) Company hereby grants to Distributor for the Term of this Agreement the exclusive, royalty-free right to use the trademark "SUPARTZ" (or such other trademarks as may be mutually agreed by the Parties) (the "Trademark") in connection with the marketing, distribution and sale of the Product in the Territory.

(ii) In the event the name "SUPARTZ" is not available for Company to register in a country in the Territory or is reasonably judged by the Parties to be inadequate based on special reason or situation of a country in the Territory, the Parties will select a new name from candidates proposed by Company and verified by Company to be available in the country, which mark shall also be considered a Trademark for purposes of this Agreement.

(iii) Company shall register, and maintain the Trademark in the Territory as Company may elect [***]. Distributor shall assist and cooperate with Company in connection with the maintenance of Trademark in the Territory. If Company elects not to maintain the Trademark in a country within the Territory, Company shall notify Distributor and Distributor shall have the right to require Company to register and maintain the Trademark in that country ("Distributor Sponsored Trademark"). In that event, all costs and expenses thereafter incurred by Company with respect to the preparation of Trademark registration application for, and with respect to the filing and/or maintenance of the Trademark registration in that country shall be [***]. Distributor shall not use any trademark confusingly similar to the Trademark within or outside the Territory without the prior written consent of Company. Company shall not use any trademark confusingly similar to the Trademark within the Territory without the prior written consent of Distributor.

(b) Distributor may not sublicense the Trademark to any third party, however, the use of the Trademark by Distributor's Affiliates and subdistributors for marketing, distributing and selling Product is permitted and approved herewith by Company.

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(c) Distributor and Company shall work together to develop a mutually acceptable package and label for the Product, which package and label shall include the Trademark and other design elements as are mutually acceptable to both Parties. The use and presentation of the names, Trademarks and logos on the packaging and labeling of the Product are to be attached hereto as ANNEX B.

(d) If the Trademark is infringed by a third party in the Territory, the Party which discovers the infringement shall promptly notify the other Party in writing. The Parties shall [***] with enforcement of rights against the infringer and the division of any awards or settlement payments. [***]. The Parties shall keep each other informed as to the prosecution of any action for such infringement. The Parties shall cooperate with each other with respect to any such action.

(e) In the event of the institution of any suit by a third party against Company or Distributor for trademark infringement involving the Trademark (other than Distributor Sponsored Trademarks), Company shall defend each such action [***] with attorneys selected by Company and reasonably acceptable to Distributor, Distributor shall assist and cooperate with Company to the extent reasonably necessary in the defense. [***] shall [***] with such third party.

Except as provided in Section 13, upon termination of this Agreement for any reason (other than breach by Company), the license granted in this Section 12 shall immediately terminate with respect to Trademarks (other than Distributor Sponsored Trademarks), and Distributor shall immediately cease all use of the Trademark (other than Distributor Sponsored Trademarks), except with respect to Products acquired by Distributor prior to the termination of this Agreement.

13. TERM AND TERMINATION

(a) This Agreement shall continue for a period of five (5) years from the LOA Effective Date (the “Initial Term”), unless terminated earlier as specifically provided in this Section 13.

(b) Distributor has the right to renew this Agreement for one (1) renewal term of two (2) years upon expiration of the Initial Term if and only if the following two conditions are satisfied: (1) Distributor provides a written notice to Company no later than one hundred and eighty (180) days prior to the expiration of the Initial Term; and (2) Distributor makes a non-refundable payment to Company in the an amount equal to [***]. Such payment shall be made no later than the commencement of the renewal term. In addition, if Distributor fails to order a minimum of [***] ([***) Units from Company during any full calendar year of the Initial Term, then (subject to the remainder of this Section), such failure shall not constitute a breach of this Agreement, but, in such event, Company shall have the right to change this Agreement from exclusive to non-exclusive upon at least sixty (60) days’ prior notice to Distributor and this Agreement shall be amended accordingly. Notwithstanding any other provision of this Section 13(b), to the extent that a failure to meet the order requirements set forth in this Section can be

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reasonably attributed to Negative Developments, then the Parties shall negotiate in good faith an appropriate reduction of the minimum order quantity or other appropriate means to offset the impact of the Negative Developments. In addition, Distributor shall have the right to reinstate this Agreement as exclusive by making a non-refundable payment to Company in an amount equal to [***]. Such payment shall be made no later than the expiration of the 60- day notice period or 30 days after completion of any negotiation of reduction in the minimum order quantity. Insofar as any payment in this Agreement is referred to as “non-refundable,” such reference shall be without prejudice to recovery by Distributor from Company of all or any portion of such payments in connection with any rights or remedies that Distributor may seek as a result of a breach of this Agreement by Company, including, but not limited to, recovery of the same as an element of damages. The Initial Term of five (5) years and the two (2) year renewal term, if applicable, shall be collectively referred to as the “Term.”

(c) Notwithstanding the foregoing, this Agreement may be terminated by giving written notice to the other Party: (i) if the other Party commits a material breach of any term or condition of this Agreement which is susceptible to cure, and the breaching Party shall have failed to cure such breach within sixty (60) days from the receipt by it of written notice thereof from the other Party; (ii) if the other Party commits a material breach which is not susceptible to cure; (iii) if the other Party shall commence any case, proceeding or other action (A) under any applicable Law relating to bankruptcy, insolvency, reorganization or relief of debtors, seeking to have an order for relief entered with respect to it, or seeking to adjudicate it as bankrupt or insolvent, or seeking reorganization, arrangement, adjustment, wind-up, liquidation, dissolution, composition or other relief with respect to it or its debts, or (B) seeking appointment of a receiver trustee, custodian or other similar official for it or for all or any substantial part of its assets; (iv) if there shall be commenced against the other Party any such case, proceeding or other action referred to in clause (iii) of this Section 13(c) which results in the entry of an order for relief; (v) if the other Party shall take any action authorizing, or in furtherance of, or indicating its consent to, approval of, or acquiescence in, any of the acts set forth above in clauses (iii) or (iv) of this Section 13(c); or (vi) if the other Party shall admit in writing its inability to pay its debts as they become due. Notwithstanding the termination of this Agreement pursuant to this subsection, the non-defaulting Party shall retain all rights and remedies available at law or in equity against the defaulting Party.

(d) Company shall have the right to immediately terminate this Agreement if Distributor fails to pay any undisputed amount due under Section 4 within [***] days after Distributor receives written notice of nonpayment.

(e) The termination of this Agreement for any reason (other than a breach by Company) shall be without prejudice to Company’s right to receive all payments accrued and unpaid at the effective date of termination or to the remedy, in accordance with the terms herein, of either Party hereto in respect of any previous breach of any covenant contained herein.

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(f) Upon termination of this Agreement, each Party shall promptly (i) on request return to the requesting Party all of the requesting Party's records, materials and Confidential Information in the possession or control of the other Party, or its Affiliates, suppliers or third party subdistributors, except promotional materials reasonably required by Distributor to promote, distribute or sell Products remaining in its inventory as permitted by this Section 13(f), and (ii) discontinue all distribution of the Product, except as otherwise permitted pursuant to Section 3(d) above and 13(g) below.

(g) Termination of this Agreement shall not terminate Distributor's obligation to pay the purchase price for Product which has been received by Distributor under this Agreement, and upon any termination of this Agreement, Distributor shall continue to sell all of the remaining Products in its inventory.

14. INDEMNIFICATION

(a) Company shall indemnify, defend and hold harmless Distributor, including its officers and directors, from and against any and all damages, liabilities, costs and expenses, including, without limitation, reasonable attorney's fees, arising out of: (i) breach of Company's representations and warranties; (ii) any claim relating to the manufacture of the Product or delivery of the Product to Distributor, including without limitation death, personal injury or damage to property resulting from defects, contamination or other condition of the Product; (iii) infringement of patents or trademarks of a third party; or (iv) the act or omission of Company, its agents and representatives. In the event the Product becomes, or if Company reasonably believes the Product is likely to become, infringing upon the proprietary rights of a third party, Company shall, in addition to its other obligations hereunder, under consultation with Distributor, use its best efforts to take such actions so as to allow Distributor to continue to sell, distribute and promote the Product in the Territory without infringement on the patents or trademarks of third parties.

In the event Distributor is enjoined, prohibited, restricted for a period of at least six (6) months from selling, distributing or marketing the Product in any part of the Territory due to patent infringement, then Distributor shall have the right to terminate this Agreement with respect to the affected portion of the Territory by providing Company with fifteen (15) days' prior written notice.

(b) Distributor shall indemnify, defend and hold harmless Company, including its officers and directors, from and against any and all damages, liabilities, costs and expenses, including without limitation reasonable attorney's fees, arising out of (i) any breach of Distributor's representations and warranties or (ii) any claim relating to the sale, marketing, distribution or other disposition of the Product by Distributor, Distributor's Affiliates or subdistributors, including without limitation, death, personal injury or damage to property resulting from the sale, marketing, or handling of the Product by Distributor, Distributor's Affiliates or Distributor's sub-distributors, unless such damage liability, cost or expense is caused by Company or breach of this Agreement by Company, in which case Company shall indemnify and hold Distributor harmless as set forth in Section 14(a) of this Agreement.

(c) If Distributor or Company intends to claim indemnification under this Section, such Party (the “Claiming Party”) shall (i) promptly notify the other Party in writing of any claim or loss for which it intends to claim such indemnification, (ii) cooperate fully with the other Party and its legal representatives in the investigation of any claim or loss covered by this Section, and (iii) allow the other Party to control the defense and/or disposition of such suit or claim. Neither Party shall have any indemnification obligations hereunder to the extent that such Party’s ability to defend such suit or redress such loss is prejudiced by the Claiming Party’s failure to perform the obligations set forth in the preceding sentence.

(d) Both Parties shall obtain and maintain a policy or policies of product liability insurance coverage that shall: (i) have a per occurrence and annual aggregate limit of not less than [***]; (ii) include Distributor as an insured with regard to Company’s policy or policies, and include Company as an additional insured with regard to Distributor’s policy or policies, in both cases for occurrences arising out of issues related to the responsibility of each Party, (iii) provides for at least [***] ([***) days’ advance written notice to the other Party of cancellation or material reduction in coverage and (iv) have a policy scope of [***] which will provide coverage claims. Each Party shall provide the other Party with a certificate evidencing such coverage upon reasonable request.

15. ASSIGNMENT AND SUB-DISTRIBUTION RIGHTS AND RIGHT OF FIRST REFUSAL

(a) Except as expressly provided herein to the contrary, neither Party shall assign or transfer (whether by operation of law or otherwise) its rights and obligations under this Agreement to any Person without the prior written consent of the other Party, such consent not to be unreasonably withheld, delayed, or conditioned on terms not directly related to the assignment. This Agreement shall be binding upon and inure to the benefit of the successors and permitted assigns of the Parties hereto.

(b) Notwithstanding anything herein to the contrary, this Agreement shall continue in full force and effect in the event of a Change in Control (as defined below) involving either Party, unless as a result of or in connection with such Change in Control, (i) a Distributor Competitor (as defined below) becomes the beneficial owner of more than 50% of the voting capital stock of Company or (ii) a Company Competitor (as defined below) becomes the beneficial owner of more than 50% of the voting capital stock of Distributor. In the case of such circumstances as described in the immediately preceding sentence, the non-transferring Party shall have the right, in its sole discretion, to immediately terminate this Agreement. For purposes of this Agreement, (i) a “Change in Control” means a transaction or a series of transactions as a result of which a Person or group (as defined in Section 13(D) of the Securities Act of 1933, as amended) acquires control (as defined in the definition of Affiliate) of a Party, (ii) “Distributor Competitor” means any Person which derives more than 50% of its revenues from the sales of orthopedic medical devices and has in excess of [***], and (iii) “Company Competitor” means any Person which [***].

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Confidential treatment has been requested with respect to the omitted portions.

(c) As of the LOA Effective Date, SMITH & NEPHEW, INC. and its Affiliates shall own forty-nine percent (49%) of the voting securities in the Distributor. Notwithstanding anything herein to the contrary, in the event that, within two (2) years from the LOA Effective Date, SMITH & NEPHEW, INC. or its Affiliates sell or transfer any of their voting securities in the Distributor (other than inter-company sales or transfers between SMITH & NEPHEW, INC. and any of its Affiliates or between any such Affiliates), then the Company shall have the right, in its sole discretion, to terminate this Agreement upon written notice to Distributor. For purposes of this Section 15(c), "Affiliates" of SMITH & NEPHEW, INC. shall mean Affiliates as such term is defined in Section 22 of this Agreement, excluding, however, its clause (i) with regard to "control." For purposes of clarity, issuance of additional voting securities by the Distributor shall not constitute a sale or transfer of voting securities by SMITH & NEPHEW, INC. or its Affiliates.

16. GOVERNING LAW AND DISPUTE RESOLUTION

(a) This Agreement shall be governed by and construed in all respects in accordance with the laws of the State of New York, without reference to the conflict of laws rules thereof or the United Nations Convention on Contracts for the International Sale of Goods.

(b) The Parties shall attempt in good faith to resolve any dispute or claim between them arising out of or relating to this Agreement promptly by negotiations between executives or other representatives of the Parties with authority to resolve the dispute. If a dispute should arise, such representatives shall confer in person or by telephone at least once and attempt to resolve the matter. Such conference shall take place within [***] ([***)] days of a written request therefor at a mutually agreed time and location. Such conference is a condition precedent to initiating arbitration as provided below, unless the responding Party fails to confer within [***] ([***)] days of the request to do so, but is not a condition precedent to initiating an action for interim injunctive or provisional relief necessary to avoid irreparable harm or to maintain the status quo.

If the dispute is not settled within [***] ([***)] days of the conference or time to confer described above, either Party may submit the dispute for arbitration. The dispute shall be finally settled under the Rules of Arbitration (the "Rules") of the International Chamber of Commerce (the "ICC"). The place of the arbitration shall be [***]. The language of the arbitration shall be English with simultaneous translation into Japanese at the request of either Party. There shall be three (3) arbitrators, one (1) of whom shall be appointed by each of the Parties in accordance with the Rules, and the third of whom shall be appointed by the ICC. The arbitrator appointed by the ICC shall act as the chairperson of the arbitrating body. The arbitrators shall decide the matters in the dispute in accordance with the laws of [***], without reference to the conflict of laws rules thereof or the United Nations Convention on Contracts for the International Sale of Goods.

The arbitration shall also be governed by the United States Arbitration Act, 9 U.S.C. §§ 1-16, 201-208, including the United Nations Convention on the Recognition and Enforcement of Foreign Arbitral Awards of June 10, 1958. The arbitration shall be commenced and shall

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proceed according to the Rules, except as otherwise provided herein. Any Confidential Information disclosed in the arbitration shall be subject to the confidentiality provisions of this Agreement. Any time period specified in the Rules shall be extended or accelerated upon the Parties' written agreement. At the request of either Party, all time periods specified in the Rules may, at the discretion of the arbitrators, be accelerated or extended to the extent necessary to comply with the timetables specified in the Rules or for the reasonable management of the arbitration.

The procedures specified in this Section 16(b) shall be the sole and exclusive procedures for the resolution of disputes; provided, however, that a Party may, in addition or as an alternative to seeking interim relief from the ICC, seek injunctive or other provisional judicial relief in any court of competent jurisdiction if in its reasonable judgment such action is necessary to avoid irreparable harm or to preserve the status quo. The Parties agree to submit to the jurisdiction of [***], solely for the purposes of any such action. Despite such action the Parties will continue to participate in good faith in the procedures specified in this Section 16(b).

The decision of the arbitrators shall be final and binding on all Parties to the arbitration. Judgment upon any award rendered by the arbitrators may be entered by any court having jurisdiction over the Party against whom enforcement is sought. Each of the Parties hereby consents, for the benefit of the other Party, to the service of process by certified mail or registered mail or by an express delivery service providing a return receipt at its address set forth for notices herein.

While the procedures set forth above are being followed, the Parties shall continue to perform their respective obligations under this Agreement. Each Party shall bear its own costs and fees, including attorneys' fees and expenses, in connection with the arbitration, except that the arbitrators shall be empowered to assess costs and fees against any Party who the arbitrators find to have acted in bad faith or to have maintained a frivolous position in the arbitration.

17. NOTICES

All notices given under this Agreement shall be in writing and shall be delivered by first class mail or overnight courier or by facsimile transmission (receipt verified) and addressed to the Parties at their respective addresses set forth below:

SEIKAGAKU CORPORATION
Marunouchi Center Building
6-1, Marunouchi 1-chome, Chiyoda-ku
Tokyo 100-0005, Japan
Attention: [***].
Fax: +81-3-5220-8975

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Confidential treatment has been requested with respect to the omitted portions.

BIOVENTUS LLC
4721 Emperor Blvd. Suite 100
Durham, NC 27703
Attention: [***]
Fax: [***]

With a copy to:
BIOVENTUS LLC
4721 Emperor Blvd. Suite 100
Durham, NC 27703
Attention: [***]
[***]

Either Party may change its address or its telecopy number for purposes of this Agreement by giving the other Party written notice of its new address or telecopy number. Any such notice, if given by first class mail or overnight courier, shall be deemed to have been received on the date actually received and if given by telecopy transmission shall be deemed to have been received at the time of dispatch or the next regular business day if received after 5:00 p.m. local time of the recipient.

18. WAIVER AND DELAY

No waiver by either Party of any breach or series of breaches by the other Party, and no failure, refusal or neglect of either Party to exercise any rights granted to it hereunder or to insist upon strict compliance with or performance of either Party's obligations under this Agreement shall constitute a waiver of the provisions of this Agreement with respect to any subsequent breach thereof or a waiver by either Party of its rights hereunder or otherwise at any time thereafter.

19. FORCE MAJEURE

A Party shall be excused from failure to perform its obligations under this Agreement, including without limitation Distributor's obligations to purchase a minimum purchase quantity pursuant to Section 3(c) above, and from sanction for failure to meet minimum order requirements pursuant to Section 13(b) above, if any such failure is caused by a Force Majeure and without the fault or negligence of such Party. For the purposes of this Agreement, "Force Majeure" is defined as causes beyond the reasonable control of the Party, including, without limitation, acts of God, storm, war, riot, earthquake, tsunami, fire, flood, terrorism, pandemic, nuclear accident, cyber incident, biochemical incident, explosion, governmental orders or restrictions, shortage of materials, power cut, power shortage, or strikes or other labor troubles. Upon occurrence of a Force Majeure, the Party claiming Force Majeure shall immediately notify the other Party of such Force Majeure and its effect on such Party's ability to perform its obligations hereunder and the period during which such inability is expected to continue. The duties and obligations of the Parties shall be suspended for the duration of the event; provided, however, that if such suspension shall continue in excess of [***], the Parties shall attempt to arrive at a mutually acceptable compromise within the spirit and intent of this Agreement.

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20. ENTIRE AGREEMENT

This Agreement (with Exhibits) contains all of the terms and conditions agreed upon by the Parties hereto with respect to the subject matter hereof. No other agreement, oral or otherwise, shall be deemed to exist or to bind either of the Parties hereto, and all prior agreements and understandings with respect to the subject matter hereof are superseded hereby. This Agreement cannot be modified or changed except by written instrument signed by both of the Parties hereto.

21. SEVERABILITY

If any provision of this Agreement is declared invalid or unenforceable by the arbitration or a court having competent jurisdiction, it is mutually agreed that the other provisions of this Agreement shall survive. The Parties shall consult and use all commercially reasonable efforts to agree upon a valid and enforceable provision which shall be a reasonable substitute for such invalid or unenforceable provision in light of the intent of this Agreement.

22. DEFINITIONS

As used in this Agreement, the following terms shall have the meanings set forth in this Section unless the context dictates otherwise.

“Affiliate”, with respect to any Party, shall mean any Person controlling, controlled by, or under common control with, such Party. For these purposes, “control” shall refer to (i) the possession, directly or indirectly, of the power to direct the management or policies of a Person or to veto any material decision relating to the management or policies of a Person, in each case, whether through the ownership of voting securities, by contract or otherwise, or (ii) the ownership, directly or indirectly, of at least 50% of the voting securities of a Person.

“Annual Forecast” shall have the meaning set forth in Section 3(c) of this Agreement.

“Audit” shall have the meaning set forth in Section 4(d) of this Agreement.

“Average Selling Price per Unit” shall have the meaning set forth in Section 4(a) of this Agreement.

“Change in Control” shall have the meaning set forth in Section 15(b) of this Agreement.

“Claiming Party” shall have the meaning set forth in Section 14(c) of this Agreement.

“Company” shall have the meaning set forth in the first paragraph of this Agreement.

“Company Competitor” shall have the meaning set forth in Section 15(b) of this Agreement.

“Confidential Information” shall have the meaning set forth in Section 10(c) of this Agreement.

“Distributor” shall have the meaning set forth in the first paragraph of this Agreement of this Agreement.

“Distributor Competitor” shall have the meaning set forth in Section 15(b) of this Agreement.

“Distributor Sponsored Patent” shall have the meaning set forth in Section 11(a)(i) of this Agreement.

“Distributor Sponsored Trademark” shall have the meaning set forth in Section 12(a)(iii) of this Agreement.

“Dollars” or “\$” refers to United States dollars.

“EDA” shall have the meaning set forth in Paragraph B of the recitals of this Agreement.

“Effective Date” shall have the meaning set forth in the first paragraph of this Agreement.

“Existing Agreements” shall have the meaning set forth in Paragraph B of the recitals of this Agreement.

“FDA” shall mean the United States Food and Drug Administration.

“Force Majeure” shall have the meaning set forth in Section 19 of this Agreement.

“[***]” shall mean a [***].

“HA” shall have the meaning set forth in Paragraph A of the recitals in this Agreement.

“Initial Term” shall have the meaning set forth in Section 13(a) of this Agreement.

“Know-How” shall mean any and all technical data, information, materials and other know-how, developed or acquired by Company, either as of the Effective Date or at any time during the Term of this Agreement, which relates to the manufacture and use of Products or Product-Drug.

“Laws” shall have the meaning set forth in Section 5(i) of this Agreement.

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“LOA Effective Date” shall mean the date of the closing of the transaction transferring SMITH & NEPHEW INC.’s clinical therapies business, including the Product business, to Distributor the principal owners of which are SMITH & NEPHEW, INC. and/or its Affiliates and Essex Woodland Health Ventures and/or its Affiliates. For purposes of the foregoing, “Affiliates” of SMITH & NEPHEW, INC. shall mean Affiliates as such term is defined in this Section 22, excluding, however, its clause (i) with regard to “control.”

“Net Sales” shall mean the gross amount invoiced by Distributor or its Affiliates for the sale of the Product to third parties in the Territory, less (i) returns of Products; (ii) sales, use, value-added, excise, or other similar taxes, which taxes are included in the gross amount invoiced by Distributor or its Affiliates for the sale of the Product to third parties in the Territory; (iii) trade discounts; and (iv) freight and insurance costs. A “sale” shall not include [***], or any transfer or disposition of the Product for pre-clinical, regulatory or governmental purposes prior to receiving marketing approval. For purposes of calculating “Net Sales,” Product shall be considered “sold” upon the invoicing of such Product by Distributor or Distributor’s Affiliate to a third party.

“Net Units Sold” shall have the meaning set forth in Section 4(a) of this Agreement.

“Party” and “Parties” shall have the meaning set forth in the first paragraph of this Agreement.

“Patents” shall have the meaning set forth in Section 11(a)(i) of this Agreement.

“Person” shall mean any natural person, corporation, firm, limited liability corporation, limited liability partnership, business trust, joint venture, association, organization, company, partnership or other business entity, or any government or any agency or political subdivision thereof.

“Product” shall mean an intra-articular, injectable solution of [***] of [***] HA [***] for treatment of osteoarthritis of the knee and [***]. It shall include [***].

“Product-Drug” shall mean the Product.

“Proposed Recall” shall have the meaning set forth in Section 5(h)(2) of this Agreement.

“Purchase Price” shall have the meaning set forth in Section 4(a) of this Agreement.

“Receiving Party” shall have the meaning set forth in Section 5(a) of this Agreement.

“Registration Dossier” shall mean a written regulatory submission or document describing Product Specifications and manufacturing methods as submitted by Company and approved by the applicable regulatory agency and Distributor.

“Regulatory Conditions” shall have the meaning set forth in Section 2(c)(i).

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“Requesting Party” shall have the meaning set forth in Section 5(a) of this Agreement.

“[***]” shall mean [***].

“Specifications” shall have the meaning set forth in Section 5(a) of this Agreement.

“Statement” shall have the meaning set forth in Section 4(b) of this Agreement.

“Term” shall have the meaning set forth in Section 13(b) of this Agreement.

“Territory” shall have the meaning set forth in Section 2(a) of this Agreement.

“Testing Methods” shall have the meaning set forth in Section 5(c) of this Agreement.

“Trademark” shall have the meaning set forth in Section 12(a)(i) of this Agreement.

“Unit” shall mean a [***] containing [***] solution of [***] HA and [***].

23. PUBLIC ANNOUNCEMENTS

Except as required by applicable Law or any securities exchange or the NASD, neither Party shall issue any press release or make any other public announcement concerning this Agreement or the subject matter hereof without the prior written consent of the other Party, which consent shall not be unreasonably withheld. In the event of a required press release or other public announcement, the Party making such announcement shall provide the other Party with a copy of the proposed text prior to such announcement. The Parties agree that if either Party is required to file this Agreement with any governmental agency, such Party shall delete the unrelated parts, provisions or words of this Agreement to the extent possible in order to keep the terms of this Agreement confidential.

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24. MISCELLANEOUS

(a) The Parties agree that each Party is an independent contractor. Employees and agents of one Party are not employees or agents of the other, shall not hold themselves out as such, and shall not have any authority or power to bind the other Party to any contract or other obligation. Nothing in this Agreement is intended or shall be deemed to constitute a partnership, agency, employer-employee or joint venture relationship between the Parties.

(b) Except as otherwise expressly provided in this Agreement, each Party shall bear all of its costs and expenses associated with the performance of such Party's obligation under this Agreement.

(c) Captions used in this Agreement are for convenience only and shall not be deemed to affect the meaning or construction of this Agreement.

(d) This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

(e) This Agreement is neither expressly nor impliedly made for the benefit of any party other than the Parties.

25. **SET-OFF**

Each Party shall have a right of off-set against payment due from it to recover any amounts due from the other Party under the terms of this Agreement.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their duly authorized representatives.

SEIKAGAKU CORPORATION

By: /s/ Ken Mizutani
Ken Mizutani, President

BIOVENTUS LLC

By: /s/ Mark Augusti
Mark Augusti, CEO

This Agreement is also agreed and acknowledged by SMITH & NEPHEW, INC. for purposes of Sections 4(h) and 15(c).

By: /s/ Robert A. Lucas

Name: Robert A. Lucas

Title: Assistant Secretary

(Quality Specification)

The product is [***].

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required, this ANNEX A shall not be effective prior to the date such filings are made become effective and, insofar as future regulatory filings in the Territory become necessary as a result of changes to the [***] where referenced in the attached ANNEX A, Company, as the Requesting Party, shall prepare and file the same.

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ANNEX B

The Parties acknowledge that the Existing Agreements do not include an ANNEX B as of the LOA Effective Date.